The Builder.

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New Premises, Cowcross-street, E.C.—Mr. E. W. Mountford, F.R.I.B.A., Architect ..... *Single-Page Ink-Photo.*
House, "Munstead Rough," near Godalming.—Mr. E. W. Mountford, F.R.I.B.A., Architect ..... *Single-Page Ink-Photo.*
Some Examples of Modern Leadwork..... *Double-Page Ink-Photo.*

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The Architect as Arbitrator.

IT is to the honour of the architectural profession—and in this, for the purposes of this article, we may include surveyors and engineers—that they have by degrees become invested with an actually judicial character in regard to part of their business. This result has been produced by recent judicial decisions, which, at first giving forth an uncertain sound, have gradually become more and more clear, until at length, by the decision in the present year of the Court of Appeal in the combined cases of Chambers *v.* Goldthorpe and Restell *v.* Nye, the question has been placed beyond a shadow of doubt. "I think that the effect of the architect agreeing to act under Clause 20 as to the granting of certificates was that he undertook the duty towards both parties of holding the scales even and deciding between them impartially as to the amount payable by the one to the other, . . . he was in the position of a person who had to exercise functions of a judicial character as between two parties." These words of the Master of the Rolls state definitely the position of the architect, surveyor, or engineer when the duty is cast upon him of deciding on the rights of the building-owner and the contractor, and they settle a question which has been in an uncertain state for the last twenty years. It is therefore with some surprise that in a book which specially deals with the engineer or architect as arbitrator between the employer and the contractor* these important cases before the King's Bench Division are not dealt with.

It is certainly very important that the difference in the several functions of the engineer or the architect should be clearly understood, for in one position he is simply the agent of his employer, in the other he is a judge between two parties. We are all accustomed to see architects and surveyors appointed as arbitrators, but they are usually so appointed, to use a legal and a diplomatic expression, *ad hoc*, for a special purpose at a special time. But the architect as arbitrator under an ordinary contract is appointed by the contract between the employer and the contractor. Unlike an ordinary arbitrator, he is not in a sense an impartial person; he has been and still is acting as the agent of one of the parties. The fault of the book to which we have already referred is, in our judgment, that it confuses the two characters of the architect. For example, it is usually stipulated in a contract that the contractor shall not do any extra work, or deviate from the agreement, without the written instructions of the architect. In giving these written instructions the architect is simply and solely the agent of the employer. But when the contract comes to an end, and he has to give his final certificate, he becomes a judge — unless the certificate is given the contractor is not paid. "The complete separation of the functions of directing the contractor as to the work to be performed, and of approving work after it has been performed, enables the former to be regarded as functions of the agent of the employer, and the latter as those of an arbitrator, not in the sense of one who adjudicates on remedial rights arising by law upon a breach of contract, but in the sense of one who is called upon to determine whether the contract undertaken has, or has not, been fulfilled" (p. 68). But whatever the exact form in which the functions of the architect as arbitrator are clothed, he is essentially for the time being a judge, one who has to exercise judicial functions, who should approach the matter before him with absolute impartiality, and whose decision cannot be set aside unless it is vitiated by fraud or gross misconduct.

The author of the work in question might well have said something upon what may be called the legal morality of this question. It is not an easy thing for any man, however fair-minded, suddenly to have to put off a feeling of protection for his employer in order to come to a decision which may even involve a certain condemnation of himself. For instance, extras, according to a contract, are not to be undertaken without an order in writing. But over and over again this clause is neglected. Some extra has to be done. "Shall I go on with it?" asks the builder. "Yes," replies the architect, in a hurry to catch a train. Presently comes the final settlement and the final certificate, without which the builder cannot obtain a penny of the final amount. Difficulties arise in regard to these particular extras; the employer is a man tenacious of his rights, the architect is placed, as a matter of fact, in the position of sitting in judgment on himself as well as of deciding the respective rights of contractor and employer. In one case at any rate, that of Kemp *v.* Rose, decided so long ago as 1858, the Court held that it was entitled to reverse the decision of the architect because he had not approached this part of his duty with an unbiassed mind. As a matter of fact, he had given an assurance to the employer that the cost of the works would not exceed a certain amount. By the contract he was constituted sole arbitrator as to the measurement of extras, or any accounts for extras, and as to the allowance of such claims, and all other matters.* This fact, in the opinion of the Court, caused him to have a biassed mind, since he had a very strong motive to cut down the claim of the contractor so as to bring it within the amount which he had mentioned to the employer. Though this is a useful illustration of a practical difficulty, it must not be taken that this case would now be followed, since the tendency of the courts seems rather to be to assume that the architect is, as it were, suddenly clothed with new functions, and one may almost say, a new frame of mind; that he is capable of exercising a kind of duality of functions, and will proceed to act fairly and judicially the moment he begins to exercise his

* "The Engineer or Architect as the Arbitrator between the Employer and the Contractor and his Other Functions under Building Contract." By Charles Currie Gregory. London: William Clowes & Sons. 1901.

* Gregory, p. 307, Roscoe's "Digest of Buildin Cases," p. 6.

judicial functions. It is obvious that a mere statement to an employer, somewhat vague, that a building will not cost more than 1,000*l.* or 2,000*l.* as the case may be, does not in reality create a greater bias in the mind of an architect than many circumstances which may arise in the course of a contract. For example, in an American case it appeared that the architect had to decide whether certain work was work within the meaning of the contract, this same work having apparently been necessitated by his own error in furnishing working plans. In fact, the more the question of the two functions of the architect and engineer is carefully considered, the more important and far-reaching appears to be the result of recent judgments which have so greatly developed what may be termed the judicial theory in regard to an architect's functions. How difficult the position in which the architect is placed has become, and how much more trying it is than when he is called on to act as arbitrator between parties with whom he has had no previous connexion, is well shown in the following passage from Mr. Gregory's work:—

"An arbitrator, in the strict sense in which the term is used as a person to whom, alone or in conjunction with others, a right of action is referred for arbitration instead of to a court, can no more make a valid determination without granting the parties an opportunity of presenting their respective sides of the case, in the presence of each other, at a formal hearing, than a court can do so.

But where in a contract it is provided that the engineer or architect to be appointed by the employer for the direction and superintendence of the work shall certify the completion of the work, or the amount to be paid to the contractor, or the fulfilment or measure of any other contract undertaking, the intention is not that he shall, before so certifying, be required to afford the parties an opportunity of a formal hearing. It is his own knowledge and skill, and his own observation and that of his subordinates, that it is intended he shall act upon, and not upon facts to be established by the evidence of witnesses, nor upon the opinions of expert witnesses."

This statement strikingly shows the difficulty of the position, for not only has the architect to shake himself free from all bias, he has also to decide without the assistance of the parties. In the above extract there is a remark which, however, requires notice—"that of his subordinates." In the case of Clemence *v.* Clarke, decided in 1880, and strangely omitted from Mr. Gregory's book, it was ruled that a total delegation of work to a subordinate might vitiate a final certificate, which is, in a sense, an award. "If, indeed," said Mr. Justice Grove, "the architect had delegated the whole of his duty to another person; if he had taken another person and paid him a smaller sum of money than probably he would be entitled to; if he had taken a man of inferior station to supervise and look over all the work instead of himself, and had abdicated his functions wholly in favour of another person, that would have been a ground for setting aside the certificate, because in that case it would have amounted to misconduct." In that particular case, his conduct was impugned because he had had the work measured up by a quantity surveyor, but the partial delegation was considered to be justifiable, because an architect need not and could not in some cases go personally into all the details of the work. This case, however, is illustrative of the various small practical difficulties which may arise. And, indeed, it is not unworthy of notice that the whole dispute arose, as it would seem, from the unfortunate wording of the final certificate:—"I hereby certify that A B is entitled to receive the sum of £—— to balance account of works, *as certified by the measuring surveyor* to be the final amount due thereon, executed by him at —— (Signed) C D, Architect." Had the words which we have italicised been omitted the point would never have been raised; showing that an architect should simply and solely certify what amount is due to a contractor. In addition, however, there are larger and more theoretical questions, to which allusion has already been made, which may arise during the time that the architect is acting as arbitrator, not under a formal submission by two strangers, but under a contract between two parties, the contractor and the employer, by which, strange as it may seem when nakedly stated, the contractor binds himself to accept the award of the agent of the person for whom he is to work, and who during the course of the contract must necessarily—except in this particular instance—look only to the interests of the employer.

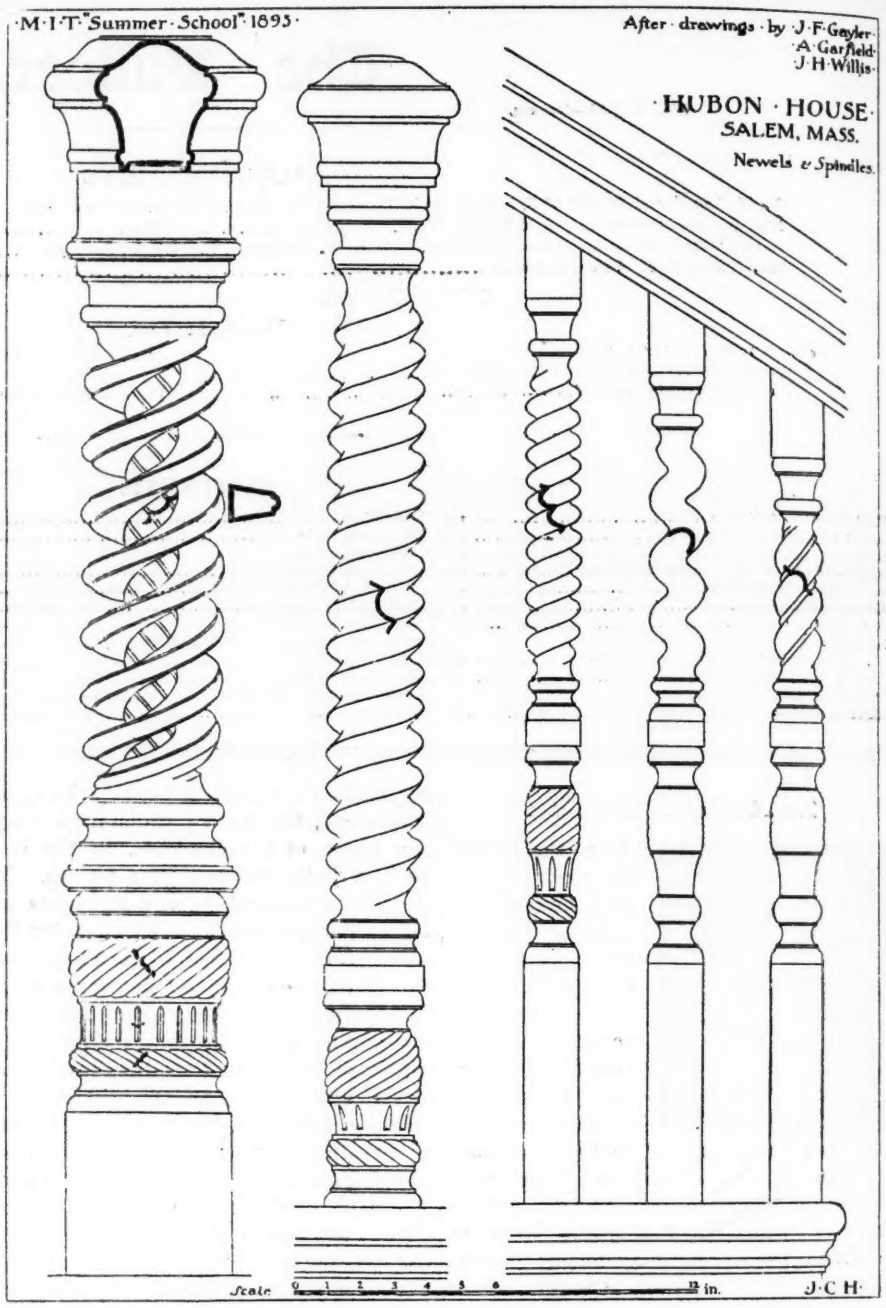

Fig. 1. [*See next page.*

COLONIAL ARCHITECTURE IN AMERICA.

ABOUT the architecture of the Georgian period in America, commonly spoken of in the States as "colonial architecture," or that of the buildings erected by the colonists before the Union, there is a great deal of interest both from its resemblance to and its difference from the architecture of the same period in the mother country. In the general aspect and style of the colonial buildings the resemblance is very strong indeed; it is the same style carried out on foreign ground. The principal differences arise from the influence of new circumstances, of which the most powerful is obviously that of material. The architectural forms carried out in England with brick and stone, or brick with stone columns and other accessories, was carried out in the American colonies to a great extent in wood, as the most plentiful and most easily worked material of the new country. Hence arose new proportions in the orders employed in porches and doorways. The classic column was elongated into tall and slender proportions quite logically expressive of the difference in the quality of the material; and the pro-

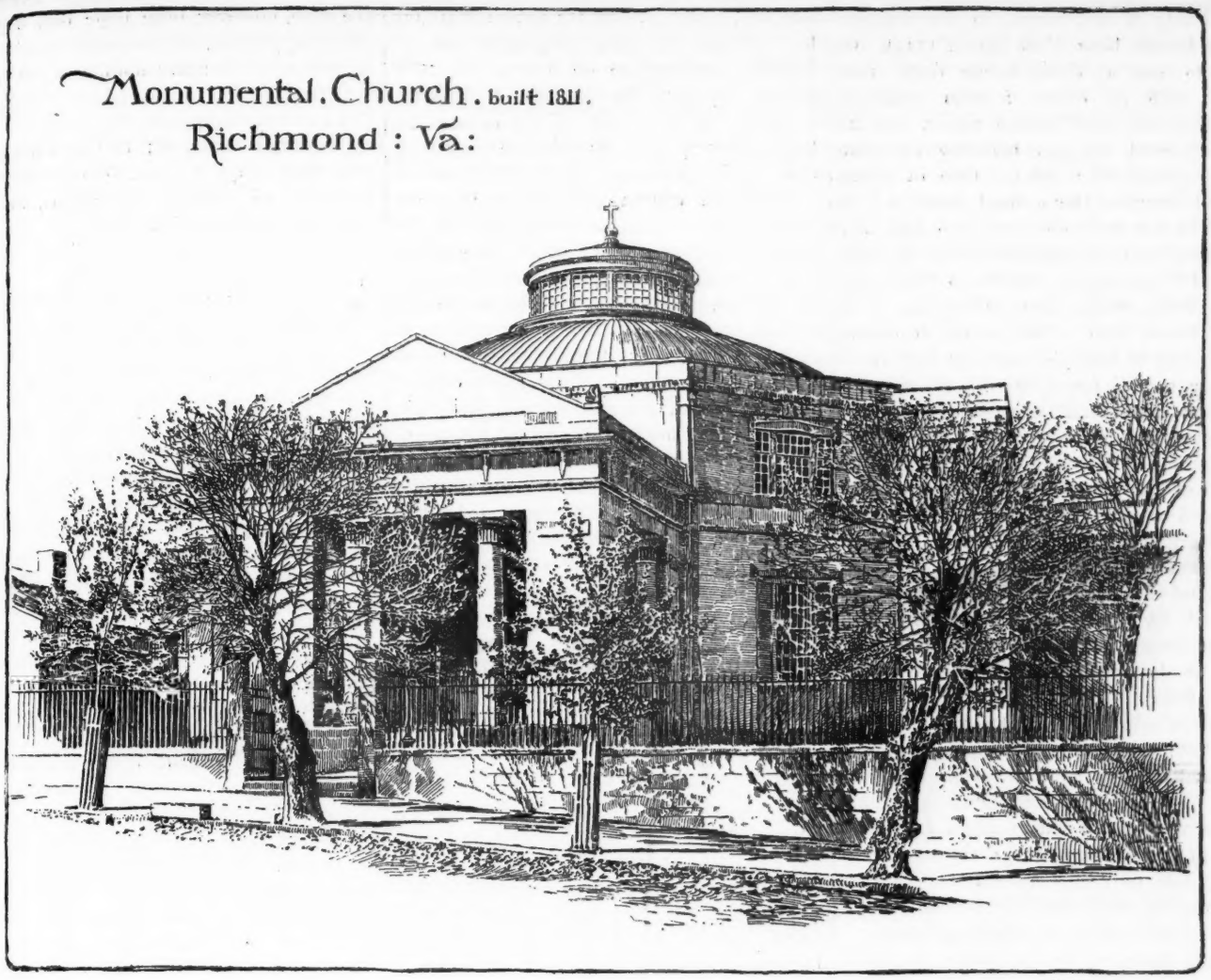

Fig. 2. [*See next page.*

portions which would have appeared bad, because practically fragile, in a stone column, appear quite satisfactory and in good taste in a wooden one. The extensive use of wood also gave rise to a good deal of special elaboration of wooden detail. In England the wooden balusters of stair-railings, though often much thinner than anything that could be made in stone, preserve for the most part the simplicity of character of the stone baluster. The colonial joiner indulged himself with fancies in corkscrew work, as in the newell from Hubon House, Salem (fig. 1), making one spiral design appear to run the contrary way through the centre of another; a device not admirable in itself, but amusing as showing the workman making the most of his skill in handling the chief constructional material available.

The large collection of measured drawings and other illustrations published in a series of articles in an American architectural journal, and since issued in portfolios as a separate publication,* brings within the reach of English architects a complete survey of this class of American work, so closely connected in history and association with English architecture. An introductory essay, with a number of small sketch illustrations, gives an analysis of the varieties found under different dates and in different neighbourhoods.

In the domestic architecture the treatment of the doorway closely follows that of the English precedent; as in the typical Georgian country house in England, the general building is a plain parallelogram, the small amount of architectural embellishment being concentrated on the porch, where, as already observed, the decorative column often assumes the long proportions of woodwork, but otherwise closely follows English precedent. It is noticed, however, that in Pennsylvanian houses the columned porch is commonly omitted, and the reason given for this (whether rightly or wrongly) is a curious one; it is that the Pennsylvanian settlers had gone through so severe a fight against the primeval forest, having to clear every piece of building ground from tree trunks, that they had had enough of shade and of anything approaching to the shape or reminiscence of a tree-trunk, and wanted no more of it. The explanation seems, however, a little too far-fetched.

In the southern provinces the influence of timber seems to have been less prepon derating than in the north. "The aristocratic cavaliers who settled there differed in much from the Puritans." The great tobacco-planters loved the solitude of large country-houses; a solitude all the more complete in a country where the roads were mere bridle-paths. Many of these settlers were sons of prominent English noblemen, and had an inherited taste for comfortable and substantial houses. "They were the first among the American settlers to introduce glass for the lighting of rooms;" a passage we do not quite understand. Is it implied that the more northern houses at the early period of settlement were without glass in their windows? "Perhaps the inherited desire of the Virginia settler to live in dignity and splendour can best explain his preference for brick, in a country where wood was the most natural material, and where it was everywhere abundant." The rivers being the only safe and practicable highways, "each planter sought to have his own river-front, with a little dock to which the small English and Dutch vessels could come for barter." These characteristics seem to convey to the mind a vivid idea of the general style and surroundings of the old Virginia homestead.

The first illustration in the book, from a photograph of the Culver Homestead, in Monroe County, is characteristic enough of the influence of wood on classic architectural forms. We see a plank-faced house with a modillion cornice, and a large porch with Roman-Doric columns 14 diameters high, a wide boarded pediment over it, the flat return behind the cornice over the outside columns making a great shelf on each side, of no use for anything but to hold dust. It is a curious example of the tyranny of architectural precedent, for no one would have thought of building a wooden porch in this way but for the influence of masonic architecture. Turning over the plates, we come, in the illustration of the Fairbanks House, Dedham (Mass.), to an interesting example of the early framed house (this one was built in 1636), all of wood except the one lump of brick or stone in the centre of the plan, which takes the fireplaces and chimneys. This is a dwelling racy of the soil, but the examples of its furniture shown in the succeeding plate might all have been made in England. The wooden cornices from some of the old houses in Boston, largely founded on classic detail, have however a certain amount of novelty

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* "The Georgian Period;" a collection of papers dealing with "Colonial" or eighteenth century architecture in the United States. Boston; the *American Architect and Building News* Company; 1899-1900.

and variety of treatment. In the Philpse Manor house, New York (about 1745), we seem to see a Wren house done into wood, with its rows of prim windows all alike, with small square panes, and its two columned porches breaking the line of the ground-floor front. One of these porches occupies the natural position as a screen to the main entrance into hall and staircase; the other, exactly similar in treatment and importance, stands in front of a door opening straight into the kitchen. This house shows also a feature which occurs occasionally in English buildings, but which seems a special favourite with the colonial architect—a balustrade erected at the top of the slope of the hipped roof, and presumably surrounding a flat on the top (there is no section of the house given). The interior contained a good deal of rather elaborate carved ornament, a gracefully treated balustraded staircase, and a drawing-room ceiling diversified with symmetrical knots of foliage, and with two decorative panels enclosing portrait heads in relief. Three pages are given to designs of fanlights and glazed panels from Baltimore—whether that city was peculiarly addicted to this kind of decoration, or whether it happened only in this particular to have attracted an illustrator. The fanlights are much of the same type as we see in Harley-street and elsewhere in London houses of early nineteenth century date, only they seem to show rather more variety, and also occasionally more ambitious attempts in decorative glazing.

A good many of the churches—not those of the very earliest period—are curiously English in appearance, and the steeples, often very graceful, are obviously inspired by Wren. We give an illustration of one which is somewhat less English in character, what is called the "monumental church" at Richmond, Virginia (1811); a church with, as will be seen, a fine octagon plan with bays on the alternate sides, which owes part of its local character to that feature of the balustrading round the upper portion of the roof, already noticed. In this case one may suppose that the balustrade surrounds a skylight in the centre of the dome (here again there is no section); in that case it could have no practical use in such a position, and must have been regarded as an ornamental finish. The same feature occurs in the Pennsylvania Hospital, Philadelphia; a building which, but for this feature, might safely be presumed to be English.

The mantelpieces in many of the old houses show great refinement and delicacy of design and (if we may trust the indications in the drawings) of execution; they are all more or less on the Adam model, but with an occasional interesting novelty of detail. One of the most refined and graceful is that making part of the design of one side of the parlour in an old house, No. 1,234 in Washington-street, Boston, the illustration of which we reproduce.

This large collection of drawings illustrating the colonial architecture of the States is of great value as a record of a class of structures of great interest, many of which are from time to time being destroyed in the process of modern "improvements," or are becoming too dilapidated to be kept up any longer. American architects will no doubt use them as sources of inspiration in cases where it is intended to revive the colonial style; to English architects they can hardly have that kind of value, for notwithstanding the interest of these reproductions of Georgian architecture on a new soil, they are not equal to the originals in England, except in regard to some of the ornamental details of fireplaces, &c. And though they form a highly interesting chapter in architecture, one cannot but regret that the pioneer settlers on the other side of the Atlantic should have given themselves over so much to English precedent, and should not, after they had begun to get beyond the mere practical requirements of shelter and housing, have endeavoured to think for themselves a little more, and to have treated their stock material, timber, in a natural and unfettered manner, instead of following the forms of stone architecture so much. The writer of the introductory analysis, Mr. O. Z. Cervin, seems indeed to have had some such idea in his own mind, for he heads his essay with a quotation from one Eggleston (a novelist, we believe) to the effect that "Men can with difficulty originate even in a new hemisphere;" a dictum which the architecture of the "good old colony days" seems certainly to confirm.

NOTES.

The New Government Offices.

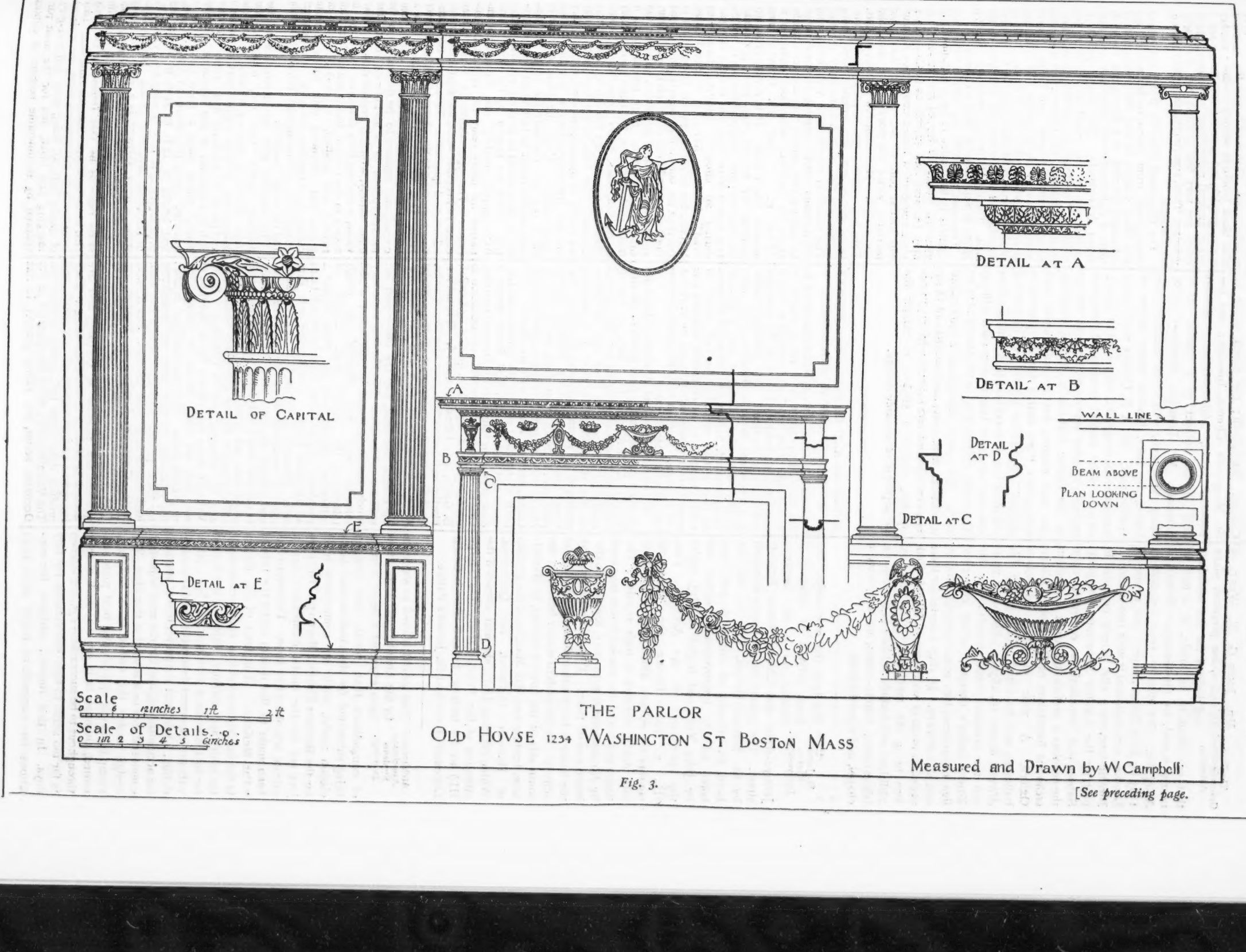
Mr. Leonard Stokes, writing in Thursday's *Times* as one of the executors of the late Mr. Brydon, gives a clear and authoritative statement of the case in regard to the state in which Mr. Brydon's drawings were left. The drawings handed over to the Office of Works were but incomplete drawings of the carcass of the building, for the first contract, leaving all finishing for a second contract. "A number of ½-in. scale detail drawings," he adds, "are in existence, but many of these were hurriedly made to help the quantity surveyors to obtain a tender, and Brydon himself would have been the first to admit that these drawings required very careful reconsideration and revision." This statement renders the necessity for the appointment of an architect of the highest class, to carry out the building, even clearer and more decisive than before. A few days previously Professor Aitchison made an attempt to call attention to the importance of engaging an eminent architect to carry out the late Mr. Brydon's design, in a letter to the *Times* which is full of enthusiasm for architecture, and in the course of which he says—what in one form or another he has often said before—that there is no reason why we should not have as perfect an architecture as the Greeks, if we cared as much about it and took as much trouble to obtain the best architects. We should agree entirely with this gospel of hope if only one could get English people to care about it, but that is just the difficulty; and we fear that to the perceptions and sympathies of the average Englishman such a letter as that of Professor Aitchison will be addressed in vain. He makes, at the conclusion, a definite proposal that Dr. Rowand Anderson should be invited to carry out Brydon's work, as one who "has a name for being the best classic architect in the United Kingdom." We have not before heard this special and unique position attributed to Professor Anderson, but there could be no one better, except for the fact that he lives in Edinburgh, and it would be more convenient to have an architect living in London. We have, however, little hope that any one will be appointed, for the simple reason that the general public care nothing about it, and the Members of the Legislature still less. The Treasury have seen their way to effecting a small economy; and in comparison with that a question of the architectural treatment of a great building is, in their eyes, not worth considering.

The Easement of Light.

In the recently reported case of Greenhalgh *v.* Brindley, decided by Mr. Justice Farwell, which is to be found in the current number of the "Law Reports," the conclusion arrived at by the Judge was obvious. Still, decisions such as this prevent future litigation. Of course a grantor cannot derogate from his own grant but a grantor can give no rights over the land of other people in regard to the easement of light. In the present case a purchaser discovered that the vendor had made an agreement with the owner of adjoining land that no right of light should accrue to the vendor's property. On these grounds the purchaser objected to fulfil his contract. But as without this agreement the dominant tenement had not yet obtained a right to light, and as without this agreement the owner of the servient tenement could interrupt the light of the dominant tenement, the Judge held that the contract must be performed. All that was lost by the agreement was a vague possibility of obtaining a right to light at some future time. At the same time the Judge would not allow the vendor the cost of the litigation because in fairness he ought to have informed the purchaser before the contract of his covenant in regard to light, and left him to judge for himself whether it was or was not so detrimental to the property as to cause him not to buy it.

The London School Board Building Sites.

The unseemly dispute over a site in the Borough of Stepney for a site for a new school is at length ended. It is a curious instance of the difficulties with which the London School Board has to contend. The experts of the Board selected a site in Blakesley-street which was approved by the Inspector and was then scheduled in the Bill of the School Board. The Bill passed in ordinary course through the House of Lords and also a first and second reading in the House of Commons. Suddenly a small group of anti-educationalists, led by Lord Hugh Cecil, discovered that the site for the new school was an improper one, and asked that the Bill should on this point be referred to a Committee. This was done, and the Bill was passed by this body. Thereupon the opponents of the Bill said that it should have been referred, not to a small "Private Bill Committee," but to that larger body a "Select Committee." This demand was acceded to by the Government, and last week the Bill was again approved. The Borough Council of Stepney was represented by counsel, but there was no real opposition to the site, it only being said that the Blakesley-street site was too good for a Board school, whereas one would think that the better the site in such a district as Stepney, the more suitable it was for a school. As a matter of fact, no site can be chosen which pleases all parties, and if the School Board is to be harassed in future sessions by unreasonable objections



THE PARLOR

OLD HOUSE 1234 WASHINGTON ST BOSTON MASS

Measured and Drawn by W Campbell

Fig. 3.

[*See preceding page.*

to sites, the building operations will be greatly hindered.

The Free Grammar School, Abingdon.

Mr. John G. T. West, of Abingdon, has prepared plans and designs for the additions that are about to be made, at a cost of nearly 6,000*l.*, to the Grammar School at Abingdon. The charity was founded in 1563 by John Roysse, citizen and mercer of London, who endowed it with two houses in Birchin-lane, on a site latterly occupied in part by the London Assurance Company. Subsequent benefactions conferred upon the scholars a preferential right to election on to the foundation at Pembroke College, Oxford. A view of the old school buildings will be found in No. 940 of *The Mirror*, March 16, 1839. Thirty-two years ago the premises were rebuilt after Mr. Edwin Dolby's designs, which comprised five classrooms, two science-rooms, studies, and an infirmary. In 1897 a hostel for three assistant masters was erected, Mr. H. Redfern being the architect. The proposed additions will include a block of classrooms, laboratories, lecture-rooms, an art-room, a chapel, and a gymnasium.

St. James's Market, Jermyn-street.

We hear that the project has been revived of building a theatre on a site between Jermyn-street and Charles-street, Regent-street. The ground was formerly occupied by St. James's Market, built in 1666 for Lord St. Albans, of which a part was taken for the improvements carried out by John Nash and begun in 1813, under the provisions of the Act 53, Geo. III., c. 120. During the eighteenth century the market, which has latterly fallen into decay, enjoyed a high repute. The upper portion of the market-house was used by Nonconformist preachers, Richard Baxter being one of them. The Mitre Tavern was the home in her youth of Nance Oldfield, the actress. In the eastern corner house, on the south side of the poultry market, in Market-lane, leading into Pall Mall, lived the parents of Hannah Lightfoot, the Quakeress. Whilst residing there she first attracted the attention of the Prince (afterwards George III.) as he walked to and fro between Leicester House and St. James's Palace.

Architectural Association Students' Drawings.

The prizes offered to students by the Architectural Association have attracted a larger number of competitors than usual, nine designs being submitted for the Architectural Association medal, while six competitors tried for the Banister Fletcher Bursary. The subject set for the medal competition was a private school for fifty boys. The award has been made to the design under the title of "Pat McKann." The fault of this design is the inadequate lighting and ventilation of the stairs and corridor, which is not atoned for by the evident care that has been taken with the important details of school accommodation. Light, and the prevention of stagnant air accumulating, are far the most important considerations in a subject of this kind. The design under the device of a halfpenny stamp is, in our opinion, the best plan submitted, although it is on too small a scale throughout to be successful—*e.g.*, the kitchen is far too small to turn out dinners for fifty boys. In this respect, perhaps, the conditions for competitors might have been more clearly defined. The Banister Fletcher Bursary has been won by Mr. T. F. Green, with drawings of Morden College, Blackheath; the south porch of St. Margaret's Church, Ipswich; and the Brewers' Hall, Addle-street. Morden Hall is the subject of a capital set of drawings. Mr. Bossom's drawings of St. Mary Woolnoth, which we recently published, are here, besides some others of Gothic work. Mr. A. R. Conder sends some measured drawings of Gothic work that carry us back to the careful mechanical draughtsmanship of many years ago, such as we see in the Gothic text-books. Some windows are well chosen, but an unfortunate note saying that "the design for the glazing is original" shows how little effect measuring old work has on some students, who can thus combine so much labour with such trifling. The works executed in the Studio are also on view. We notice throughout a too studied attempt at originality, and too little of those more trying academic exercises which, in our opinion, enable a student to master the principles of reasonable design.

BUILDING AND ORNAMENTAL STONES AT THE GLASGOW EXHIBITION.

Building stones are not well represented in the Exhibition, except in so far as Ireland is concerned. This is to be wondered at, seeing that the stone industry is one of the principal industries in Scotland. The numerous excellent sandstones found in Dumfries, near Edinburgh, and near Glasgow are practically unrepresented. Scotch granites are in evidence on one or two stalls, but the best exhibit of them, presently to be described, includes also some foreign stones, which seem to be rather out of place. English building stones are conspicuous by their absence.

The Irish building and decorative stones are grouped together in the Irish pavilion. Messrs. George A. Watson & Co., Ltd., of Tower-buildings, Liverpool, exhibit a very fine grained sandstone of grey tint from near Inistimon, on the West Clare railway. It is specially employed for paving purposes, including flagstones for footwalks, stairs, landings, station platforms, kerbing, channelling, and crossings, also as setts and cubes for streets, passages, &c. Cubes, kerbing and a slab are shown. The ports of shipment nearest the quarries are Liscanor and Kilrush. Mr. S. G. Fraser shows a dark grey stone slab from his Donegal quarries. One of the most serviceable stones exhibited is the fine-grained light blue granite by Lt.-Col. B. Gaele, from Glendoan quarry. It is not unlike the well-known blue-grey Aberdeen granite. To bring out the appearance of the material under varying conditions, a slab has been prepared the upper portion of which is polished, the central fine-axed, and the lower part left with a rough surface. We like this stone very much, though it would be still better if the minerals were not disposed in rough foliations; the rather large crystals of orthoclase felspar here and there impart a porphyritic aspect to the material, which takes an excellent polish. The Benduff and Fræ Slate Company, Eastview, Glandore, co. Cork, exhibits blue-black slates having a fine, even, and straight cleavage. The slate beds are said to outcrop over a hill of 900 acres in area and more than one mile in length. The nearest railway station to the quarries is Skibbereen, and the shipping port is Glandore. Some Valentia slates are shown, but at the time of our visit we could obtain no information respecting them. They are blue-black in tint; the specimens on view were not remarkable for their perfect cleavage, though the slate itself looked serviceable enough. The Killaloe Slate Company, Limited, of Nenagh, co. Tipperary, exhibits several blue-black slates of several sizes and of fairly even surface. The quarries are situated at Corbally, and are worked in strata of Lower Silurian age. They lay open a vertical section of over 400 ft., and produce slates from 10 ft. square downwards. The Valentia slates, which are quarried in the Devonian series, are rather greener in tint than those from Killaloe. The Arigna Mining Company, Limited, Ballinamore, co. Leitrim, have some large cubes of grey stone. The Earl of Leitrim exhibits some large, grey granite cubes. One is of a grey tint speckled with black biotite in minute crystals; another is also greyish, but speckled with biotite and a green mineral resembling hornblende. Both cubes are very fine grained, and are useful granites. They, apparently, come from Milford, co. Donegal.

The Congested Districts Board for Ireland have granite from Barna, co. Galway, not unlike Shap granite in that the phenocrysts of orthoclase are pink in a finer-grained groundmass of lighter-coloured orthoclase, and dark green hornblende. The Barna granite is represented by one small slab and a thin column. The Board also exhibits some granite from Shantallow, co. Galway. This is composed of mottled pink and light-coloured orthoclase with black specks. It is of fine grain and when polished is handsome. There is also a small polished column of Connemara marble and some others not described, on the stall. The agents for all these are Messrs. J. Miller & Sons, Marble Works, Galway.

The most attractive part of the Irish stone exhibits is the series of large polished slabs mounted along the top of the stand. They may be described as follows:—Castlegar, a black and greyish limestone from co. Galway; the central part of the slab is raised and polished, whilst the margins are fine-tooled and dulled. Middleton red marble, co. Cork. This is a crushed and foliated marble brecciated throughout, the angular pieces being lighter in tint and ornamentally disposed. The whole is veined with very small white calcite veins mostly running in one direction. Chimney-pieces, panels, pilasters, and slender shafts for buildings have been formed of it. "Irish green," from co. Galway, forms another pretty slab. It is a deep green serpentine, and for the purposes of this exhibit the slab has been cut down the centre and the two halves have been laid side by side, producing an effective pattern. Castleisland "red," from co. Kerry, is a reddish-brown breccia, the larger fragments being lighter in tint than the cementing material which forms the background; this marble is of sombre hue, and suitable for subdued effects. Another slab called "Irish green" is an ophicalcite; it is more contorted than the deep green already mentioned, and bears considerable resemblance to some of the Eozoon limestones from Canada. The Irish serpentines from Galway are nearly all ophicalcites—that is to say, they are not true serpentines in that they contain much calcite. From the point of view of effect they are probably the better for that, and another result is that larger slabs are produced than would be possible with true serpentine. They are known by the generic term "Connemara marble," and have been employed for many years for ornamental purposes. The ophicalcites in West Galway occur in irregular beds, amongst metamorphic schists and quartzites. There are two varieties, according to the observations of Professor Hull. One variety from Letterfrack is of a dense, opaque, and uniformly deep green colour, and appears to be derived from the metamorphism of a hornblende rock. The other variety, which is regarded as of higher value, is derived from dolomitic limestone. It occurs in the form of bands and laminæ, often twisted and tangled, of varying shades of green, and interlaced with bands of white calcite or crystalline dolomite. The principal quarries are at Lissoughter Hill, Ballynahinch, and the neighbourhood.

To continue with the description of the polished slabs: "Cork red," similar to that from Middleton already alluded to, but the pattern has a more fragmentary appearance and there are no small white veins. Another slab is composed of the celebrated "Galway black," which takes a good polish. It is quarried along the shores of Lough Corrib, and blocks of 12 ft. to 14 ft. in length, and even larger, 4 ft. to 5 ft. wide, and about 1 ft. in thickness have been raised. Rooska limestone, county Galway, is a deep black-grey crinoid stone, the crinoids showing conspicuously in section. An inspection of this stone reminds us that Ireland is extremely rich in carboniferous limestone marbles. They have much to recommend them, for none are of gaudy tints, all being grey and blue-grey, merging into black, and for the most part relieved by innumerable sections of crinoid

stems which impart a pleasing but unobtrusive pattern. They closely resemble the Derbyshire "fossil" marbles, and some from Devonshire and the Isle of Anglesey. Another slab shown in the Irish pavilion is "Erne fossil" marble, county Fermanagh, which is light grey in tint and crowded with crinoids, some of which are of light pink tint, which gives a unique appearance to the stone. An occasional light calcite vein runs through the whole. The pink tint is doubtless due to the presence of a small quantity of limonite. Another slab from Middleton, county Cork, is a red and light blue mottled marble, with parti-coloured unobtrusive veins, except for some of the larger veins, which are white, with traces of light pink. From Moneen, co. Westmeath, comes a dark grey-black marble, with light grey straggling patches variegated with darker parts. The next slab mounted on the stand is again from Middleton; it is a metamorphosed limestone, with large straggling light and dark pink pieces; the background is variegated, mostly yellowish grey in tint, with traces of light pink, the whole veined in lighter tints of the same character. Another crinoid marble is from Clonowen, King's County; in this the fossils are very large, and the stone is so much like the dark large-patterned Derby marble that they might be readily mistaken for each other. Edenry limestone, co. Kildare, is a dark grey, very fine-grained speckled marble. The whole of the marble slabs just described are exhibited by Messrs. E. & S. Glanville, of Dublin. They are the most characteristic of Irish marbles, though they are not so well known to English architects as they might be, except the blacks and greens, which have been employed in the United Kingdom for many decades. They are worthy of careful inspection, though the visitor will find that the officials in charge know nothing about them—at least that is what we experienced—and the stones must perforce be left to tell their own tale. A little handbook would be extremely useful.

Passing from this general exhibit, we may notice the column of Kilkenny shell marble exhibited by Mr. Richard Colles, of the Irish Marble Company, Kilkenny. This marble, known all over Europe and America, is deep black, with occasional white sections of calcite shells. These latter, however, are not always conspicuous, and enormous blocks are raised which are perfectly black—a great rarity in marbles. The Kilkenny marble takes a beautiful polish, and when first cut is quite black. Professor Hull says that the organic matter to which its blackness is due gradually passes off. We can hardly agree with this, however; for the writer has had specimens of this marble for nearly twenty years in his possession, and they are as black now as ever they were. Perhaps they came from other horizons than those referred to by Professor Hull. In any case, the excellence of this black marble will not be disputed by those architects who have used it, even though the white shell-marks will occasionally appear on the best slabs and columns.

Other Irish stones exhibited are a slab and column of Shantallow granite, which is very fine grained, has pink and greenish orthoclase, not much black mica, and a little hornblende. There is a round polished slab of green igneous rock from Lambay Island, called porphyritic andesite on the sample. It closely resembles the *vert antique* of the ancients, and the rock has attracted considerable attention for some years. The ancient green porphyry of Greece, with large pale green crystals of plagioclase felspar, is technically a diabase-porphyrite; and the Irish rock now alluded to from Lambay Island, near Dublin, is of similar character. Connemara marble is again represented by a large flat table top mounted on a pedestal. Soapstone is represented by specimens from near Dungloe, co. Donegal; they have been sent by the Donegal Soapstone Syndicate, Limited, of Manchester. They are said to have been obtained from "Dungloe quarry"; as a matter of fact they have no doubt come from Crohy Head, where the soapstone has been dug from a vein running up the side of a precipitous cliff. The last time we visited the locality a tunnel had been driven in, and attempts made to mine the material.

We cannot close these observations on the building stones exhibited in the Irish pavilion without expressing our appreciation of the careful manner in which thoroughly representative stones only have been brought together. We could wish that more actual building stones (as distinguished from those used for decoration) had been shown also, but we presume it was thought that the most suitable materials for an exhibition outside of Ireland would be those which, for the most part, were of an attractive character. At the time of our visit many of the specimens were not very effectively displayed, and some were, we are sorry to say, labelled with the wrong names and localities. We have reason to believe, however, that that has now been put right.

Scotch granites and stones are present mainly on one stall or enclosure out in the grounds, and the exhibitors are Messrs. Alexander Macdonald & Co., Limited, of Aberdeen. If the exhibit is not an extensive one, it at least has the merit of showing some of the best known Aberdeen granites. It suffers from not having any description, however, and the visitor is left to his own knowledge as to what the stones really are, or where they come from. At least, that is what we found when visiting the grounds. Amongst the finished granite monuments, &c., we noticed a runic cross in fine-axed red Peterhead, which was remarkably uniform in tint. There is also a basin with ornaments rising from the centre of a pedestal of the same stone polished. The use of Peterhead hornblendic granite is again exemplified by a tall polished column, with turned cap and base. There is a polished tombstone of blue-grey Aberdeen granite, which has dog-toothed ornaments round the margins, the pattern being brought out by part being sunk. That part is dull, and the remainder polished, except for the base on which the upper part of the stone rests. There is also an ornamental carved tombstone surmounted by an urn, all dull or fine-axed, and light grey in tint. This presents the appearance of Kemnay stone. Close by in the same exhibit is a large cross mounted on a massive square base with sunk surfaces. It is polished, and is of a very deep red tint, the orthoclase present being fine and uniform. This is doubtless a Scandinavian stone. Another object is a pedestal having square mouldings and sides on a square base. The whole is of polished, light, coarse-grained Laurvikite; the felspar phenocrysts have a conspicuous pearly lustre. This is also a Scandinavian stone, much used on account of its attractive appearance. It is sometimes called "labradorite" in the market, but it is in reality an augite-syenite—if a scientific term is to be used in connexion with it for trade purposes. The stone is closely allied to certain nephelite-syenites, and occurs amongst the Devonian intrusions of the Christiania district. Alkali felspars make up the bulk of the rock, and are often intergrown with one another. Lying on the ground within Messrs. Macdonald's enclosure are several short lengths of polished granite columns, such as red Peterhead, grey Aberdeen, and some Swedish varieties.

Not far away, also in the grounds north of the river Kelvin, Messrs. Davies & Sneade, of Liverpool, have some French burr-stones, used for milling, doubtless from La-Ferté-sous-Jouarre, in the Paris basin. This is a breccia, the fragments being almost entirely of a siliceous character and bound together by a hard siliceous matrix. Another stone on the same stand resembles millstone grit, and a third variety is a coarse brown sandstone.

The Moreau Marble Company, Limited, of Chelsea, has a large assortment of artificial marbles, chiefly made up in various forms, in the grand avenue. There is a mantel and chimney piece, partly inlaid with different colours. In the centre of the stand is a font of a deep brownish yellow colour, supported by small black pillars on a yellow base. Close by are some large slabs of the marble in various tints, also a clock stand, urn, columns, &c. There is one tall fluted column in yellow, with cap and base, the latter being brown veined, and the former deep brown. The stand also includes green-veined blocks, a large table top, and specimens of the stone from which the marble is produced. The average crushing strength of the stone before conversion is stated to be 2,867 lbs. to the square inch, and 4,148 lbs. for the same after treatment. Other experiments have shown that the average crushing strength before being subjected to the process is 2,926 lbs. to the square inch, and 4,050 lbs. afterwards. It is evident, therefore, that the alteration of the soft limestone employed into marble enormously increases the strength of the material.

Messrs. F. R. & C. H. Luke & Co., of West George-street, Glasgow, have a stand in the grand avenue, on which are displayed a number of building materials. There were samples of light and dark Shap granite; a baluster and column of the light-coloured stone shows the phenocrysts of pink orthoclase very conspicuously set in a lighter tinted background. A polished column of Ross of Mull granite of deep red tint is also shown. Several specimens of Scagliola marble are exhibited, including a tall red, fluted column, a green pillar having dark streaks, light green baluster, small slab samples of brecciated serpentines, &c. There are many samples of American slates of blue, grey-green, and olive-green colours; the turrets mounted on the top of the stand are covered with them. Some are fixed in such a manner as to show the method of using these slates in roofing and walling. Some peculiar terra-cotta slate slabs are also shown. The blue slates (called "Arfon") are quarried at Arvonia, in Virginia, others come from Slatington, and from Granville, New York. The roof of a house in the garden is covered with the terra-cotta slates.

In the same avenue, but at the opposite end, Marmor, Limited, of Finsbury-square, E.C., exhibit specimens of Greek marbles, fixed to the wall of the building. Prominent ones are a kind of green cipollino, some apparently serpentines and ophicalcites, light and dark green in colour, fine and coarse breccias, and red and pure white marbles. There is one large slab of white and red breccia, the red being mostly very bright and vivid, with blue streaks here and there; this breccia is very coarse and is suitable for decoration on a large scale. Some Greek marbles from Skyros, exhibited by the same firm, will be found on a wall of the Royal reception rooms; they are of several colours and appear to be chiefly metamorphosed limestones.

Some building stones are shown in the section devoted to Rhodesia, including red sandstone from Helenvale quarry, near Bulawayo; there is a fluted column and carved cap in fine-grained white sandstone, also from Bulawayo. Messrs. Sherriff & Burgbacher, of the same place, have a specimen of light greyish yellow sandstone of very fine grain, and cubes of red and white stone, all quarried near the town.

RAILWAY COMPANIES AND REBATES.

ONE of the most interesting and important cases which have been before the Railway Commissioners—involving the question of rebates to large customers—was decided last week against the railway company concerned. The applicants were the well-known firm of coal merchants, Messrs. Charrington, Sells, Dale, & Co., who complained that their trade rivals, Messrs. Rickett & Co., had been granted an undue preference by the Midland Railway Company, in the shape of a rebate of 1¼ per cent. on all their traffic, provided it amounted to not less than 140,000*l.* per annum. This arrangement was kept secret — a fact which weighed largely with the Commissioners in giving a verdict against the railway company. Their defence was somewhat weak and unconvincing, and as they had already terminated the arrangement complained of, it would appear that they had not much faith in their case. They could hardly have expected the Court to agree that the course they had pursued was "in the interests of the public," for, as the Commissioners remarked, the rebate assisted to establish Messrs. Rickett in a prominent position, and such arrangements must inevitably tend towards the monopoly of trade by the more powerful firms. This would be contrary to the main intention of Parliament in legislating against undue preference, and it will also be remembered that the Act of 1888 made it obligatory upon the companies to publish all their rates. The chairman remarked at the half-yearly meeting that the agreement with Messrs. Rickett was made in good faith, and it was considered that the enormous traffic put on the line by them entitled them to some discount on their very large bill. The judgment of the Court was that the arrangement had not been sufficiently disclosed to satisfy the requirements of the Act —though not a fraudulent concealment—and as the company have to refund the applicants 1 per cent. on the amount of their traffic for the past six years, it will take a good many small economies, such as the railway companies are just now seeking to effect, to

enable the Midland Company to rectify their mistake.

A singular feature of the case was the sanction given by the Commissioners to an allowance of one-quarter per cent. in consideration of the volume of Messrs. Rickett's traffic. This appears to be a weak spot in the judgment. The allowance is a mere trifle—equal to ¼d. per ton on a tonnage rate of 8s. 4d.—but it apparently admits the principle of a rebate (or discount) to large customers after all. Looked at in another light, the Midland Company erred on the side of generosity, and allowed Messrs. Rickett five times as much as, in the judgment of the Commissioners, they were entitled to allow. The judgment does not fix the amount or volume of traffic below which no allowance is legal. The Railway Commissioners have always had a knack of finding some justification for a fractional proportion of charges which are called in question ; and although it can hardly be said that a compromise has been effected in the case under consideration, there is certainly just a flavour of compromise about the judgment.

There are so many other merchants who will consider themselves prejudiced by the 1¼ per cent. rebate, that the Midland will find it a very costly affair, and will possibly endeavour to get the decision modified. The chairman told the shareholders at Derby that he was not prepared to say that the directors would accept the decision of the Court as final ; but, as has been said, their case seems a rather weak one, and they may be content to console themselves with the reflection that they can quote this case as a sufficient ground for declining to entertain any applications for concessions of this nature in future.

ARCHÆOLOGICAL SOCIETIES.

Kent Archæological Society.—The forty-fourth annual gathering of members of the Kent Archæological Society was recently held at Maidstone. The business meeting was held at the Old Palace, under the presidency of Earl Stanhope. The Council, in their forty-fourth annual report, state that the Society is in a flourishing condition. It was incidentally mentioned that this was the third time the Society had met at Maidstone after an interval of nineteen years. During the past twelve months several valued members had been removed by death and other causes. Thirty-two new members had been added to the Society, whilst twenty-four awaited election. The Council embraced that opportunity of referring to the great public spirit shown by Mr. F. S. W. Cornwallis, late M.P. for Maidstone, in recently purchasing the ancient college at Maidstone, at a cost of 3,800*l.*, for the sole purpose of preventing its being acquired for commercial uses or threatened with destruction. In the last volume of the Society's "Archæologia" a paper was contributed by the Rev. G. M. Livett, on the remains of an early Roman building existing between the east end of All Saints' Church and the Palace at Maidstone. It was necessary to draw the special attention of the trustees of the Palace to this, the earliest masonry at present known to exist in the town. The report was adopted, on the motion of the Rev. Fairman, seconded by the Rev. Woodruff. At the conclusion of the business, Mr. Hubert Bensted conducted the members over the Palace, and read an interesting paper on its history. Afterwards the company adjourned to All Saints' Church, where the Rev. P. C. Joy read a paper on the historic edifice. In the afternoon, the party were conveyed in brakes to Leeds Castle, the route being through Mote Park. The beautiful grounds and ancient castle were shown to the visitors by Mr. and Mrs. Wykeham Martin. Mr. F. V. James, curator of the museum, read a short paper on the castle. He remarked that he would refer to it with regard to its position as an example of the military architecture of the Middle Ages, and of its strong position as a fortress. The castle stands upon three rocky moles, of which two are islands in a lake, and the third occupies the central part of the artificial bank, by which the walls are or were retained. Dealing with the chronological aspect, he said that in the Saxon period the keep was believed, on strong evidence, to have belonged to that period. Its construction at that time, in accordance with others of a like character, was a large truncated conical mound, surrounded by a deep ditch, on the inner edge of which a stout palisade of timber was placed, equal in defence to a wall, and strengthened by turrets and towers. The Normans took the Saxon forts as they found them, and Norman shell keep was the name given to them by changing Saxon buildings of wood into fabrics of stone. The earliest masonry represented by a vaulted cellar was believed to be the work of Robert Crevecoeur, who founded Leeds Priory in 1119. The lower portion of the old castle, and the chapel, with its windows of geometrical tracery, are assigned to the period of Edward I., and belong to the Early English style, A.D. 1280. Extensive alterations did not take place till the time of Henry VIII., when the upper story of the old castle and the Maidens' Tower were built. Tradition supposes this tower to have been built for the Maids of Honour, but a later conception is that the appellation is a corruption of the word main or principal tower. While in possession of the Smith family of Strangford ancestry, an Elizabethan mansion was erected in the seventeenth century at the north end of the large island, and in 1822 the present mansion was erected, and during the progress of the work many of the remains of the former building were discovered.—Leeds Church was also visited, and described by Mr. Payne. The Vicar, the Rev. A. P. Morris, gave a short address. When he was appointed Vicar in 1877 the chantry was called the washhouse, as the water came through the ceiling. There were the old square pews, and when the galleries were taken away a fine old Norman arch was discovered. One of the old brasses found was in memory of one Catherine Lambe, who it was believed was the mother of the founder of the Co-operative Schools. —The banquet was held at the Town Hall, under the presidency of Earl Stanhope, who, in reply to the toast of the Association, said he hoped that the membership of the Society would soon reach 1,000. The members of the Society and a large number of townspeople were present at a reception held by the Mayor and Mayoress, Councillor and Mrs. F. G. Oliver, at the Museum. Following the reception, Mr. Hubert Bensted, in the Bentlif Art Gallery, read an interesting paper on "Houses of Old Maidstone." On the following day Boxley Abbey was visited, the archæologists being allowed by Mr. R. A. Hamilton Seymour to inspect the discoveries made there quite recently. A vote of thanks having been proposed by Mr. Collyer Fergus to Mr. Seymour for his kindness in allowing the visitors to inspect the Abbey, the party returned to pick up those who came by train, and then proceeded to Sutton Valence, where lunch was provided in a marquee on the Recreation Ground. Sutton Castle, East Sutton House and Church were inspected, and description given of them.—*Kentish Courier.*

WANTED—A TOWN.

BY THE REV. RICHARD FREE.

Five o'clock in the evening, and a fine drizzle falling. Gusty, too ; so that if you are not sufficiently clad you will soon know it in a certain clamminess about knees and elbows. A riverside rain and a riverside wind, penetrating and searching, doing their deadly work very thoroughly. So empty is the street that, were it not for its sudden curve as it follows the course of the river, you could send the proverbial cannon-ball whizzing down the middle of it without hitting a single living thing—provided you shot straight. For, despite the steady drizzle, little children, their hair and clothes wet and lank, are playing at the open doors of the barrack-like dwellings ; a few loiterers hang about the public-houses, waiting for a Heaven-sent drink ; and a knot of women at a corner, bare-headed and eager, are discussing the iniquitous proceedings of the new Board School visitor who has brought them to book in very summary fashion for the truancy of their offspring. Otherwise the street is deserted. No carts, no trolleys, no vans, no drays ! For the day's work is all but over.

Hark ! The silence is broken by the clang of factory bells and steam-whistles, filled with dire suggestions of tolling for the dead and the cry of lost souls over lost opportunities ; and then, into the West Ferry-road, crowding it from end to end, swarms a motley throng of humanity. Do you see these women, with shawls over their heads and whitened hair ? They have been toiling all day in an atmosphere thick with pernicious dust—that is where they got their powdered hair ; and now, having earned the magnificent sum of 1s. 6d. for their long day's work, they are hastening homeward along the curving street. Those boys, black as chimney-sweeps, too tired to give us more than a nod as they pass, are plodding in the opposite direction ; they, too, are homeward bound. The surging mass of factory girls, pale-faced, red-eyed, and bedraggled, yet as good-looking and cheerful as factory girls can be—and that is saying a great deal—have just turned out of yonder huge building in their hundreds ; they are homeward bound also. And the stream of begrimed men, somewhat roughly but withal good-naturedly hustling us as they press on, has only one aim and end—to get home as quickly as possible.

Pleasant pictures come to these hardworking folk as they hurry along ; the kettle singing merrily on the hob ; the good thick hunch of bread (buttered, pocket and larder permitting), the pennyworth of hot fried fish straight from the shop. If any people in this mighty, throbbing, human machine called East London deserve their tea hot, strong, plentiful, and *at once*, surely these brave Millwallers do. Yet few of them will get it for an hour or more. See that girl, the pale thin one, with the old, old face. Sixteen ; not a week older ! She lives a good three miles from here. Her father is a drunkard, her mother an invalid ; she is going to walk every inch of the way home. Look at her shoes. Poor little lass ; there is more bare flesh than leather on the ground, as she trudges through the slush and slime. What a shawl ! She will be soaked to the skin before she is half-way home.

"What does it mean ?" Well, it means that there is nowhere for this girl to live hereabouts ; and her case is but typical of thousands. Go down to Greenwich Ferry any evening about this time, and you will find the boats overloaded with workpeople leaving this district for their homes over the water. Cross the dock bridge, and you will find the little omnibus that plies to and from the West India Dock Station crowded with the few who can afford to ride, the narrow, serpentine street thronged with the many who must needs walk. Our people live anywhere but here where they ought to live—at Stepney, Poplar, Deptford, Greenwich, Canning Town, Silvertown, East and West Ham. Think of the hardship imposed on these poor folk. They must rise at five in the morning to reach their work by six, be an hour late in getting to bed at night after their long tramp, waste shoeleather, enrich the railway companies, add unnecessarily to their physical wear and tear, and run the risk of cold, consumption, and death. Believe me, a night like this sends many a one to his long home.

"And the reason for these people living so far from their work ?" The reason is the strangest, the most incredible. It is not that there is no room for them to live ; there are acres of barren land here, on which could be built pretty, commodious houses (not hideous, uncomfortable flats) capable of accommodating 10,000 people. It is not that there are no builders who will undertake the job ; there are a dozen men in London who would be willing to start to-morrow if they could see their way clear to a fair profit on the transaction. But they cannot ; and that is why they will not build ; and that is why these honest folk are compelled to travel to and from their work by road, by river, by train, and by "shanks' pony." "And why cannot they build ?" Because the price of the land hereabout is prohibitive. Landholders are asking 6,000*l.* an acre on the other side of the island, where land is scarce ; and even here, where it is plentiful, they want an average of 1,250*l.* an acre—not freehold, mind, only a ninety-nine years' lease. Then guess what our rating is in Poplar. Over 9s. in the pound ; the highest, so they say, in the whole of London ! And a more desolate and forsaken place than this—badly lighted, badly scavenged, badly policed—the whole of London could not show. "Slums ?" No, we have no slums. We are a hard-working and law-abiding folk, for the most part ; there are no criminals among us. And that is the shame of it. Perhaps, if we had made London ring with our sins, we should be better looked after ; as it is we are shockingly neglected.

You will see at once how any ordinary building scheme should fail of success under the circumstances ; and so the factory, like the huge greedy monster it is, has it all its own

way, and, spreading hither and thither, lays waste the homes of the workers. When I first came to this district four years ago, I could not get so much as a single room to live in; and I had to wait for three months before I could secure such a house as the one I now inhabit, which is by no means a palace. The other day a newspaper man came to see me, and he roamed up and down the West Ferry-road for ever so long before he found me. "I kept on looking at this house," he explained, when he was at last seated in my study, "I kept on looking at it, and saying to myself, 'The parson can't live *there*, surely!'"

The house famine is much more acute to-day than it was four years ago. Year by year, almost month by month, the dwellings of the poor are sacrificed to the factory-monster. A row of houses is suddenly doomed, and notice to quit served on the inhabitants; in a few weeks another vacant space is added to the acres of emptiness around; in a few more weeks a huge chimney belches out thick black smoke, shot with tongues of living fire. No effort is made to house the evicted. That is not the business of the up-to-date employer of labour. Women, dragging little children along, tramp the streets for miles; men toss through sleepless nights wondering what is going to become of them; lads and girls are ruthlessly thrown out of good employment because they can find no lodgment near enough to their work. It is a real thing and a terrible, this same house famine. Hereabouts you may walk till you drop, and you will not find so much as a single room "to let." As for houses—but I will give you an instance. There was a house about to be vacated a short time ago, and it got about, as such a rare event always does in this neighbourhood, and long before the tenants were out the agent had fifty-three applications for that house. Yes, the dwellings of the workers are being perpetually sacrificed to the gluttony of the factory, and the workers are being driven farther afield, to their detriment in health and wealth. What is wanted is a philanthropic builder, who will be satisfied with 4 per cent. in money on his outlay and 100 per cent. in the blessings of a host of happy people. For this Isle of Dogs is, without doubt, the healthiest part of the East End, and, for that matter, as healthy as any part of London. "A dreamer?" Well, I suppose I am; and in my dream I see neat artisans' dwellings, where now are dirt and desolation; a playground for the young and a resting-place for the old, where now are heaps of filth and refuse; trees whose growth shall be grateful to weary eyes, where now are miles of unsheltered pavement; electric light, where now are fitful gleams of remote lamps unworthy of the countriest of country towns; clean, well-paved roads, where now are dust in summer, mud in winter, and defilement always; a prosperous town, in short, where now are forlorn streets and wretched houses. That is my dream for Millwall. I wonder whether it will ever come true?

St. Cuthbert's Lodge, Millwall.

COMPETITIONS.

WORKHOUSE, WIGAN.—At a meeting of the Wigan Board of Guardians recently some discussion ensued on the minutes of the Estates Committee, and it was ultimately resolved that the minutes should be confirmed, with the addition that Messrs. Heaton, Ralph, & Heaton, of Wigan, should be put in the list of architects who could compete for the work of making plans and sending in specifications for the new workhouse. The list of architects, as altered, contains the names of Mr. W. Owen, of Nottingham; Mr. Morton; Messrs. Chas. Smith & Sons, of Reading; Mr. Arthur Marshall, of Nottingham; Mr. E. Kirby, of Liverpool; and Messrs. Heaton, Ralph, & Heaton, of Wigan.

STONE WINDOWS.—A Consular Report to hand from Germany mentions that in a new building attached to some boiler works in Upper Silesia a novelty in windows has been tried. Light is introduced through stone windows. The ordinary panes of glass were impracticable on account of the nearness of the works to the railway lines, so pneumatic glass stones have been used instead. From the outside the appearance is the same as the so-called "Butzen" panes. They are translucent, and at the same time as strong as the stone wall in which they are set; they will withstand any pressure or blow that the walls will withstand.

THE CEMENT TRADE.

A REPORT has been received at the Foreign Office from Mr. Pelly, British Vice-Consul at Seattle, Oregon, in which he writes:—"Cement in large quantities has been used in building operations of all kinds. The year 1900 witnessed a large increase of building, and cement was in heavy demand. The great tunnel of the Great Northern Railroad through the Cascade Mountains consumed a large quantity. The cement came largely from Belgium and England. The prospect for the current year is a large demand. The quotation by the jobber to the consumer on imported cement has ruled from 13s. 2½d. to 14s. 5d. per barrel."

Reporting on the commerce, &c., of Portland, Oregon, Mr. Consul Laidlaw says that the cement trade there has largely gone to Germany and Belgium, and this year China and Japan have entered as competitors. Some of the Chinese brands of cement are reported to be of good quality, and well up to the best brands, but the Japanese cement is not favourably reported upon. Writing from Tacoma, in the same State (Oregon), Mr. Vice-Consul Alexander observes that a feature of interest in the statistics is the import of barrels of "Portland" cement manufactured in Hong Kong. The indications are that Hong Kong will make constantly increasing shipments to the Pacific coast of this article, which has been subjected to Government and railway tests with excellent results.

Mr. W. Moore, British Acting-Consul at San Francisco, forwards the following table of the cement imported in his consular district during the last two years:—

	Quantity.	
From	1900. lbs.	1899. lbs.
Belgium	122,182,290	59,234,000
Germany	75,412,551	27,005,200
United Kingdom.	69,442,000	37,541,000
China	2,964,146	—
Japan	981,200	—
Total	270,982,187	123,780,200

Importations (Mr. Moore remarks) were unusually heavy in 1900, the amount received being more than double that of the year preceding. A large and fairly satisfactory business was done for the first six months, but afterwards prices declined owing to the heavy arrivals and the competition of domestic producers. The stock in hand at the close of the year was very large, and, added to that contracted for and on the way, is quite sufficient for a year's requirements. Prices closed irregular, concessions having to be made to induce buyers to transact business. Not many years ago British cement had almost a complete monopoly of this market, but last year the importations fell from second to third place, as may be seen by reference to the table. This state of affairs is attributed to the manufacturers who refused to regard the advice and warnings of importers, who urged them to produce a finer article, which they neglected to do until the Continental makers had firmly established themselves in the business. The British cement now sent here meets the requirements in quality and price as compared with the Continental article, but has lost the prestige that it formerly held, and no longer commands the sale it used to enjoy. The competition that was threatened by the Chinese and Japanese manufacturers did not turn out to be of a serious nature, only a small amount having been received from those countries. These imports are sent here by steamer, while the cement from Europe comes by sailing vessels, and the difference in the cost of transportation is said to offset the advantages they possess in cheapness of production. Competition of a more serious character has arisen through the manufacturers of the State of Utah, who are forwarding consignments to this market on a large scale, and who recently secured a contract of 10,000 bags in competition with the agents of European brands. They have since secured several contracts from the United States naval and military authorities at a price of 2 dols. 35 c. (9s. 8d.) per bag (a bag contains 380 lbs. and is equivalent to the contents of a barrel) laid down where the work is proceeding; and although some prejudice exists against this mode of packing, no serious complaints have arisen. All the cement that came in during the last six months of 1900, and that which has arrived since, shows a serious loss, as with present prices and rates of freight the European article cannot be landed here for less than 2 dols. 60 c. (10s. 8½d.) to 2 dols. 75 c. (11s. 4d.) per barrel. Several local companies for the manufacture of cement have been incorporated, and one of them, possessing extensive properties at the town of Tesla and backed by large capital, is expected to commence operations by the end of the current year. Those that can produce a good article and are situated within a radius of fifty miles from this city have excellent prospects of success, as the transportation charges will not preclude the consignment of their product to this market. Some of the conservative business men here express the opinion that the entire needs of the State will be supplied from local sources in the near future.

In an official Report received from Germany it is announced that the Prussian Minister of Public Works has issued new regulations for the testing of cement. The railway authorities have therefore established a department for that purpose in their technical bureaux. No particular technical knowledge is necessary for the testing operation; only experience is wanted. In cases of dispute the last appeal is to be made to the Royal Mechanical Technical Experiment Institution (Department for Building Materials) at Charlottenburg. The judgment of experts at this institution is always called into requisition when large quantities of cement are delivered for important buildings. The cement trade (adds the Report) has been in a very bad state for some time, owing to over-production and underselling. Since the principal works have formed a trust the outlook has become brighter. The trade would benefit considerably if the great Midland Canal were to be built.

Illustrations.

S. ANDREW, STOKE DAMERALL CHURCH AND RECTORY.

THE rectory shown upon the drawings was erected last year. It is built of the rough local rubble, with rough-cast exterior, rough stone base and chimneys.

The fashion of the place is to neatly cement the houses, and line them out, with the result that the town is quickly acquiring a thoroughly mean and temporary character.

Stoke is the mother parish of Devonport. The old church in its present form is constructed largely of ships' timbers, and has a curiously ramshackle aspect. The tower and one of the porches belong to the early sixteenth century, and have a pleasing but decrepit local character, but there is nothing else of interest save a few architectural fragments.

The graveyard was picturesque, but has recently been spoilt by a Corporation road-widening and a prodigious official wall and railing.

It is proposed—as the church must be rebuilt—to erect the new building upon a fine site adjoining the rectory, some few hundred yards from the old one. The plan has been specially schemed to suit the peculiarities of the new site. It is proposed to use local elvan externally and Beer stone internally, and to give the building a thoroughly west-country character.

The tower of the old church will be preserved.

W. D. C.

NEW PREMISES, COWCROSS STREET.

IN the street front here shown the lower story is of West of England granite, unpolished. The upper portion is of Lawrence's red brick and Bath stone (Monk's Park). The frieze, modelled by Mr. Pomeroy, is to be carved in Portland stone.

The builders are Messrs. Killby & Gayford, and the clerk of works Mr. J. Brady. The electric lifts are by Messrs. Waygood & Co.; the iron and steel work by Messrs. Jones & Co.; the electric light wiring by Messrs. Wenham & Waters; and the fittings of the still house by Messrs. Bennett Shears & Co.

Mr. E. W. Mountford is the architect.

"MUNSTEAD ROUGH," NEAR GODALMING.

THE walls of this house are covered with Portland cement rough-cast, and it is roofed with Westmorland slate. The dining-room is panelled with oak, the hall with some very beautiful English cedar.

The builders were Messrs. Kingerlee & Son, of Oxford. The garden was laid out by Miss Jekyll.

Mr. E. W. Mountford is the architect.

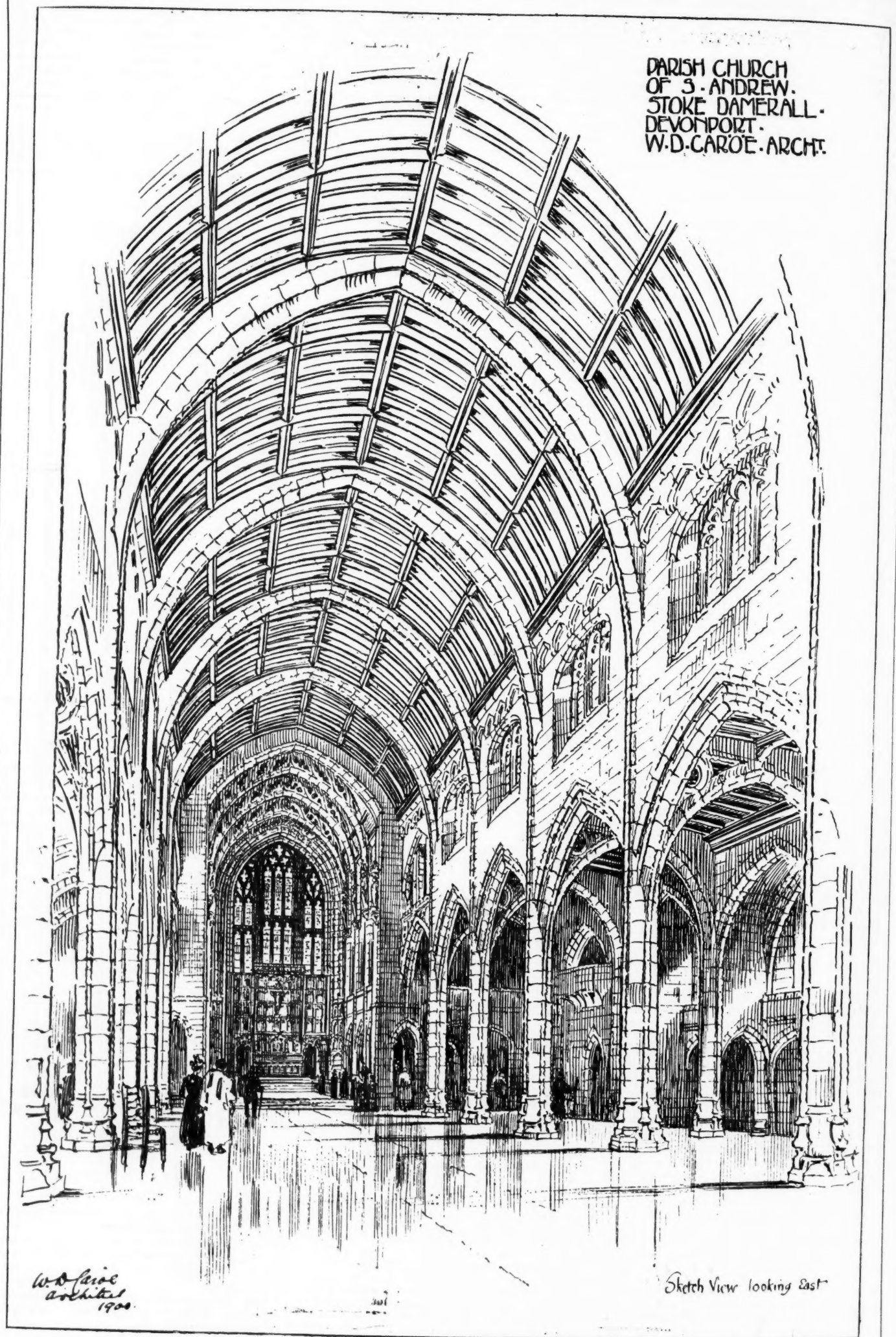
SOME EXAMPLES OF MODERN LEAD-WORK.

ONE of the signs of the increased attention now paid to the artistic treatment of detail is to be noticed in the revival of the old taste for the decorative treatment of leadwork, even when used only for such practical purposes as gutter-heads.

Our sheet of illustrations shows several examples of work of this kind, nearly all designed by architects.

Fig. 1 is a rain-spout head designed by Mr. F. W. Troup and made by him and Mr. Dodds.

Figs. 2, 3, and 5 are rain-spout heads



[See preceding page.

designed by Mr. H. Weir Schultz and made by Mr. Dodds.

Fig. 4 shows fret-cut vallances, made at the School of Arts and Crafts at Bethnal Green.

Fig. 7 is a rain-spout head designed by Mr. F. Inigo Thomas and made by Mr. Dodds.

Figs. 6 and 8 are two leaden sun-dial tables designed by Mr. F. W. Troup and made by him and Mr. Dodds.

Correspondence.

To the Editor of THE BUILDER.

PURIFICATION OF SEWAGE.

SIR,—I have been much interested in your leading article of last week on the bacterial purification of sewage.

Eight years have passed since you quoted (August 12, 1893) the evidence given by Professor Sims-Woodhead before the Royal Commission on London Water Supply, when he referred to my early experiments, in which "animal and vegetable substances are rapidly broken down and brought into solution by the peptonising organisms which liquefy gelatine."

Following upon these experiments the further process of nitrification has been carried out so as to obtain 98 per cent. oxidation of the organic nitrogen in sewage. The first result is attained by the inherent putrefactive changes of the sewage itself, and the second change is arrived at by providing *that amount of filtering surface and that amount of air* necessary for the working of the nitrifying organisms which produce final mineralisation of the organic pollution.

When you say in your leading article, "The unsatisfactory nature of the London effluents, both chemically and bacteriologically, is to a large extent due to the faulty method of treatment and to the makeshift apparatus," you state, in general terms, what would have been equally true if you had said the London experiments have not made proper provision for utilising the inherent capacity of sewerage to liquefy its organic solids by a putrefactive change, and have not provided *that amount of filtering surface and that amount of air* which is necessary for the complete mineralisation of the organic pollution of the sewage. You would also have been justified in saying that the London results prove that the professional advisors of the Council do not know what amount of putrefactive change and what amount of filtering surface and air are necessary to purify the London sewage in terms of any given number of gallons per twenty-four hours. Their experiments should have been directed, in the first instance, to the sole object of obtaining this information, and their reports must necessarily be valueless until they possess it. The real difficulty lies in their attempt to arrive at reliable conclusions without having reliable data to go upon.

The apparatus necessary for obtaining reliable data has not been used, and the labour attending upon experiments made with inadequate appliances will be thrown away indefinitely if they continue to go on as they are doing.

It is on the face of it a waste of time and money and intelligence to investigate results obtained from faulty methods of treatment and makeshift apparatus.

I wish other journals and persons equally interested in public health and expenditure would hit the nail on the head as accurately as you have done.

W. D. SCOTT-MONCRIEFF.

WIDENING OF PICCADILLY.

SIR,—It is satisfactory to find that the condemnation of this ill-considered scheme which you and others have expressed seems to be leading to its withdrawal. It does not seem to be realised that the width of Piccadilly has not much to do with the matter. The real difficulty is the too great concentration at Hamilton-place of the north and south traffic where it crosses the east and west. Park-lane is practically the only north and south thoroughfare for ordinary traffic for a mile and a-half—that is between Berkeley-street and Exhibition-road, and it appears to me that the only real remedy will be to take some liberty with the parks. For instance, why should not cab traffic be allowed to enter the park at Hyde Park Corner and pass out at Marble Arch? Or what a corner would be cut off if cab traffic were admitted at Albert Gate and taken by a new road to join the park road already named at Grosvenor Gate? It would perhaps be a pity to cut through this part of the park, but it seems to have become a necessity.

W. NIVEN

BUILDING LAW.

SIR,—Those who know anything of this subject will fully endorse the strictures of "Experientia" on the matter in your last issue, and the writer of this note (who had to criticise the new Bill before it became the Act of 1894) knows not only that "too many cooks" are permitted to take part in its preparation, but that many of them are as unfit for the operation as the writer would be in the position of Lord Chancellor. Hence the "perfect maze of building law" to which your correspondent so cogently refers. But the practical question is, will it ever be otherwise under existing conditions? I trow not.

PRACTICAL.

PORTLAND CEMENT TESTING.

SIR,—Referring to Mr. Reed's second letter, in your last issue, on the matter of Portland cement testing, I thoroughly appreciate his criticism, as it has been most fair, and it appears to me that there is now no difference of opinion between us.

THE WRITER OF THE ARTICLE.

The Student's Column.

GAS AND GAS FITTINGS.

7.—BY-PRODUCTS AND THEIR USES.

THE residuals obtained in the manufacture and purification of coal gas and the articles of commerce made therefrom, are too numerous to be even enumerated here. The manufacture of coal tar products is of itself an industry of the first importance. The aniline colours, creosote, carbolic acid, pitch, coke, sulphate of ammonia, and nitrobenzene are among the products derived directly or indirectly from coal.

At the Beckton Gasworks, London, which are the most extensive in the world, tar distillation is carried on and many by-products are manufactured, but in most cases the tar is sold by the gas manufacturer to the manufacturer of chemicals or dyes. The principal products other than gas commonly sent out from a gasworks are coke, tar, sulphate of ammonia, spent oxide, and spent lime.

Coke.—Gas coke should consist almost wholly of carbon. It should never contain more than 5 per cent. of water nor yield more than 8 per cent. of ash. The amount of sulphur should not exceed 1 per cent. The statement that gas coke contains much more sulphur than household coal is, generally speaking, altogether erroneous. The coke as it leaves the retort is in pieces of too large a size to be convenient for domestic use, but it can now be obtained from the works broken to convenient size, and consequently finds a more ready sale for domestic purposes.

Tar.—About 10 gals. of tar are commonly obtained per ton of coal carbonised. The tar from Durham coal has usually a specific gravity of about 1·200. Butterfield gives the following as the results of an assay of a typical London coal tar :—

	Per cent. by weight.	Remarks.
Specific gravity at 15·5 deg. C=1·192.		
Aqueous ammoniacal liquor	3·53	
Light oils (distilling over below 170 C)	1·99	Lighter than water. Include benzol, which is used for the manufacture of aniline.
Middle oils (distilling over between 170 and 270 C)	18·46	Include napthalene and carbolic acid.
Anthracene oils (distilling over above 270 C)	12·20	From which alizarin is manufactured.
Pitch (medium)	59·20	Used for paving, roofing, varnishes, patent fuel, &c.
Loss on distillation	4·62	
	100·00	

Tar Concrete and Tar Pavement.—Tar concrete is made of broken stones or shingle thoroughly mixed with tar, about twelve gallons of tar being used for every cubic yard of concrete. The tar should be heated and the solid matter dried before the two are mixed. Breeze, furnace cinders, broken clinker, and other materials are also often employed for mixing with the tar. For tar pavement Newbigging recommends the following treatment:—The solid ingredients are divided into three grades—1. Coarse material which will not pass through a sieve having bars ¾ in. apart; 2. Riddlings which will pass this screen, but will not pass through a ⅜ in. sieve; and 3. Fine material which passes through both sieves. The three grades are made hot and mixed with hot tar in the following proportions :—

1. Coarse material ..	1 part tar 9 parts solid	or 24 gals. tar to 1 ton solid.
2. Riddlings.....	1 part tar 7 parts solid	or 30 gals. tar to 1 ton solid.
3. Fine material	1 part tar 6 parts solid	or 36 gals. tar to 1 ton solid.

The footpath having been curbed, the upper edge of the kerb standing 3 in. above the solid bottom of the path, the coarse mixture is laid down 2 in. thick; then the medium mixture is laid ⅝ in. thick; and, finally, on top of this the finest material is laid about ¾ in. thick. Each layer is rolled with a 10 cwt. roller before being covered with the succeeding layer. The surface of the pavement may be sprinkled with powdered Derbyshire spar or granite to improve its appearance.

Tar for making pavement should, according to O'Connor, be heated until converted into pitch that will harden on cooling; but if overheated the tar will lose its tenacity and produce a pavement which will disintegrate rapidly. The tar should be heated in open boilers, at about 194 deg. Fahr., for from four to twelve hours.

Tar as a Paint for Iron.—Coal-tar contains substances of an acid nature, and these should be removed before the tar is used as a preservative paint for iron. When tar is distilled a neutral, solid, resinous pitch is obtained as a residue, and this pitch, when dissolved in benzene or petroleum, makes a better paint for iron than raw coal-tar. It should be applied while hot. Coal-tar or coal-tar pitch should not be used on iron exposed to the direct heat of the sun's rays, for tar paints so heated are liable to soften and run. Tar paints are valuable for painting pipes to be laid under ground and for sheet-iron flues. Tar is also suitable for protecting iron rivets and nuts. Tar in its raw condition always contains more or less water mixed with it, and this should be carefully removed before it is used as a paint.

Spent Oxide.—Spent oxide of iron, when discarded for further use in the purifiers, should contain not less than 50 per cent. of free sulphur. In large works this is sometimes converted into sulphuric acid to be used on the works for the manufacture of sulphate of ammonia, but the spent oxide produced in smaller works is usually sold to sulphuric acid manufacturers.

Gas Lime.—The lime used for gas purification should be flare lime, and as pure as possible. A good building lime would not be suitable for gas purification, for the power of "setting" indicative of a good building lime s a feature to be avoided in lime required for gas purifiers, and the impurities which often increase the value of the lime for building purposes always depreciate its value as a purifier. When the lime in the purifiers has become "spent" it is thrown out and exposed to the atmosphere for as long a period as possible, unless it is to be re-burnt to quicklime on the works. Exposure to the air causes oxidation of some of the unstable constituents, and diminishes the intensity of the odour evolved by the lime.

In large towns the gas manufacturer usually has to pay for the removal of the spent lime, but in country towns the farmers buy it for a small sum for agricultural purposes. Gas lime improves soils of a certain class, and checks certain plant diseases, but it should never be used until it has been exposed to the air for a long period. Dr. Voelker gives the following as the composition of gas lime which has been exposed to the atmosphere for a sufficiently long period to render it a safe manure :—

Composition of Gas Lime (Dried at 212 deg. F.)

	Per cent.
Water of combination and a little organic matter	7·24
Oxides of iron and alumina, with traces of phosphoric acid	2·49
Sulphate of lime	4·64
Sulphite of lime	15·19
Carbonate of lime	49·40
Caustic lime	18·23
Magnesia and alkalies	2·53
Insoluble silicious matter	·28
	100·00

Sulphate of Ammonia. — The ammoniacal liquor from the hydraulic main, condensers, washers, and scrubbers is collected in a well or tank, and subsequently used in the manufacture of sulphate of ammonia. The sulphate is principally used for agricultural purposes as a nitrogenous manure.

When the ammoniacal liquor is boiled, the carbonate and sulphide of ammonia it contains are decomposed and free ammonia is liberated. The ammonia, together with steam and other gases, passes forward to a baffle box, where the excessive moisture is removed, and from thence it passes to a vessel termed the "saturator," which contains diluted sulphuric acid, and in which solid sulphate of ammonia in the form of minute crystals is precipitated as the acid becomes saturated with ammonia. The sulphate is fished out with a perforated ladle and placed on a draining table. A small proportion of the ammonia in the ammoniacal liquor is present as chloride, sulphate, and other compounds of ammonia which are not decomposed when the liquor is boiled ; the residual liquor remaining after the "free ammonia" has been removed by boiling is therefore heated with lime, which causes the "fixed" ammonia to be liberated, and renders it available for conversion into sulphate of ammonia.

A sample of ammoniacal gas liquor (sp. gr. 1·0207 at 22 deg. C.) examined by S. Dyson had the following composition :—

	Grammes per Litre.
Ammonium sulphide	3·03
„ carbonate	39·16
„ chloride.....	14·23
„ thio-cyanate	1·80
„ sulphate	0·19
„ thio-sulphate	2·80
„ ferro-cyanide	0·41

Prussian Blue.—Compounds of hydrocyanic acid (prussic acid) are present in small quantities in the unpurified coal gas as it leaves the retorts. These compounds are termed cyanides (ammonium cyanide and sulphocyanide), and several processes have been devised to recover the cyanogen in the form of sodium or potassium ferrocyanide for subsequent conversion into the cyanide of iron ($Fe_7\ Cy_{18}$) known as Prussian blue. The manufacture of Prussian blue is, however, carried on at very few gasworks in this country, and very few details relating to the method of manufacture, and the economy effected, have yet been published ; and it is said that the Prussian blue obtained is not so pure as that manufactured from other sources. Prussian blue is always present in more or less quantity in oxide of iron which has been used for purifying the gas from sulphuretted hydrogen.

Bisulphide of Carbon.—Liquid carbon bisulphide has been recovered on a comparatively large scale by H. Leicester Greville from the spent lime discharged from the purifiers used for removing this impurity from the gas. The liquid bisulphide may be obtained by simple distillation of the spent lime with water. It was found that the lime would yield about 1½ per cent. by weight of liquid bisulphide, and that the residue left in the boiler contained 50 per cent. of free lime, and could be again used for purification purposes. It was proposed to use the liquid bisulphide for dissolving the free sulphur from the spent oxide of iron produced on the works, the sulphur and bisulphide of carbon being subsequently separated by distillation, and the oxide of iron, after removal of the sulphur, being again used for gas purification. The scheme has not, however, been adopted, as it has been found more economical to burn the sulphur contained in the spent oxide into gaseous sulphur dioxide, and to subsequently convert it into sulphuric acid.

BOOKS RECEIVED.

Botticelli. By Ernst Steinmann. Translated by Campbell Dodgson. (H. Grevel & Co.)

Mr. Alfred Waterhouse.—The condition of Mr. Alfred Waterhouse, R.A., who is suffering from indisposition at his residence in Berkshire, is, it is stated, happily not serious.

Street Improvements, Maidstone.—At the Town Hall, Maidstone, recently, Mr. W. A. Ducat, Local Government Board Inspector, held an inquiry respecting an application by the Urban District Council for a loan of 6,500*l.* for the purpose of street improvements in Mill-street. Mr. Bunting, Surveyor, explained the plan of the proposed improvements.

GENERAL BUILDING NEWS.

School Extension, Worsley Mesnes, Lancashire.—The foundation-stone of a new infant school, in connexion with St. James's Church, Worsley Mesnes, was laid recently. The new school is being erected at a cost of about 1,500*l.* Messrs. Heaton, Ralph, & Heaton, of Wigan, are the architects of the new building, while Messrs. Hilton & Ince, of Ashton-in-Makerfield, are the builders.

Baptist Church Schools, Sheffield.—Extensions to the schools in connexion with Cemetery-road Baptist Church, Sheffield, have just been completed. The extensions are situated between the back of the church and Napier-street. There is a schoolroom, 58 ft. in length and 29 ft. across, which will principally be used as an assembly-room. There is a gallery at the back In order to bring the building into line with the street, advantage has been taken of a narrow strip of space to provide an ante-room. On the ground-floor there are also a room which will be used for young men's classes, and an infants' room. Upstairs there is a room for ladies, and the minister's vestry has been doubled in size. The old schoolroom is to be partitioned into eight class-rooms. Electric light has been provided throughout. The architect was Mr. J. Amory Teather.

Schools, Writhlington, Somersetshire.—New voluntary schools have been erected in Green Parlour-road, for the education of the children of Writhlington and Foxcote. Mr. W. J. Willcox, of Bath, was the architect, and the contract was secured by Mr. Joseph Bird, of Radstock. The new premises are built for a mixed school, and will accommodate 118 children. The building contains one large room, 57 ft. by 20 ft. There is also one classroom for thirty children, and a room for the use of the teachers. Each room opens out on to hat and cloak lobbies, one for girls and infants and the other for boys, and each contains a lavatory basin The heating is by the ordinary open fire grates. The building, which has cost about 1,200*l.*, is erected with native white lias stone with Bath stone dressings, the roof being covered with red Bridgewater tiles.

New Godstowe School, Wycombe.—The foundation-stone has just been laid of a new preparatory school at Wycombe. The new building is intended to be a boarding-house for girls, and hereafter it is proposed to erect separate school buildings in the grounds, which cover an area of five acres. The site is situated on the brow of the Amersham Hill. The house will contain for the use of the girls a dining-room, a study, and a playroom. The dormitories are to be arranged on the cubicle principle, and bathrooms, &c., will be provided in connexion therewith. From the summit to the base of the building there is to be a fireproof staircase in addition to the ordinary staircase. Externally, the building will be faced with red bricks up to the first floor, and above that the walls are to be covered with rough cast. A tiled roof will be provided. The plans for the construction of the buildings have been prepared by Mr. W. Gillbee Scott, of London, and the contract has been let to Messrs. Colls & Sons, of London.

School, Ewood, Blackburn. — The corner-stone of a new school extension at St. Bartholomew's, Ewood, Blackburn, was laid recently. The new school is expected to provide accommodation for 130 additional scholars. The architects are Messrs. Cheers & Smith, and Mr. John Boland, of Blackburn, is the builder.

School, Busby, Lanarkshire.—The School Board of Busby have decided to rebuild the school recently burned, and, as the result of a competition, Messrs. Watson & Salmond's plans have been accepted by the Board. The school provides accommodation for 450 scholars, with a central hall, round which are grouped the classrooms.

New Grammar School, Lichfield. — The foundation-stone was laid on July 20 of the new buildings to be erected, at a total estimated cost of 9,000*l.*, on Borrowcop-hill, Lichfield, after designs and plans made by Mr. T. Hillier-Pyke. The new buildings, which, it is hoped, will be enlarged hereafter, will provide, at present, for 125 boys and twenty-two resident scholars, and include residences for the head and assistant masters. The local Conduit Lands Trust contribute 4,500*l.*, and the site extends over eight acres. It is stated that the Staffordshire County Council intend to make a grant in aid of the establishment of the scientifical and technical departments of the foundation. A contract-tender of 7,082*l.* has been accepted from Messrs. Ward & Son, of Uttoxeter, subject to approval of the Charity Commissioners and modification.

Home for Sick Children, Naunton Park, Gloucestershire.—New premises for the Home for Sick Children are being built on a site at Battledown. It is intended to erect a building which, in addition to an administrative block, laundry, &c., will include two long wards capable of accommodating twenty-four children. The buildings will be of brick, the lower story pebble-dashed, the upper story of red hanging tiles ; and there will be large verandahs running round the wards for the use of the young patients. Messrs. Prothero & Phillott are the architects, and the building contract has been entrusted to Messrs. Collins & Godfrey.

Workhouse, Wednesfield.—A new workhouse, situated at New Cross, Wednesfield, is being erected for the Wolverhampton Board of Guardians. Mr. A. Marshall, of Nottingham, is the architect, and Mr. Smyth is the clerk of the works. The total area of the sites is 50½ acres, about 40 acres being utilised as airing grounds or for cultivation. The cost of the land was 11,128*l.*, while the contract for the buildings was placed with Messrs. Fish & Sons, of Nottingham, whose tender for the whole of the work reached 156,879*l.* The latter sum, however, is not inclusive of the cost of furniture, roadmaking, and the cost of the greater part of the boundary walls. Provision will be made for 1,142 officials and inmates, the former numbering sixty. The main buildings are set back from the road and parallel to it, in the centre of which will be found the administrative offices, dining-hall, stores, &c., and a little in the rear the engine-house, laundry, workshops, &c. The infirmary pavilions are some distance in the rear of the main building, while provision for a resident medical officer is to be found in the centre. The pavilions are connected on the ground floor by enclosed corridors, the roofs of which provide means of communication between the upper wards. Contiguous to the infirmary pavilion on the right is the nurses' home, which will contain messroom, sitting-rooms, library, &c., on the ground floor, and twenty bedrooms. An isolation hospital to accommodate two males and two females, and rooms for a nurse are placed near the boundary of the site on the right and furthest from the road.

Liberal Club, Neston, Lancashire.—The foundation stone of the Neston Liberal Club was laid recently. The club includes an entrance porch and vestibule facing the main road, together with a secretary's office. Provision is being made in the vestibule for the storage of bicycles. To the right of the entrance are a cloakroom, lavatories, and staircase to the gallery. On the left is the dining-room. The large hall, which is on the ground floor, is about 80 ft. long and 40 ft. wide, with a stage at the rear. On the left of this hall is the billiard-room, which can be so arranged as to form part of the main hall. A kitchen, with cooking ranges, is also being provided. At the rear of the building is the bowling club committee-room, ante-room, lavatory, cloak-room, and four bath-rooms. A verandah, 80 ft. long, runs down the western side of the building, overlooking the bowling green. The large hall and gallery will probably accommodate between 600 and 700 people. The structure is being made of bricks, with green slate roof. Mr. T. T. Rees is the architect, and Mr. J. Evans is the builder.

Hospital, Newport, Mon.—The new Newport and Monmouthshire Hospital, which has been built on a plot of land of about 4½ acres (given by Lord Tredegar), abutting on the Cardiff-road at Newport, was opened on the 5th inst. The new hospital has been erected on the pavilion principle—with central administrative block and pavilions stretching out on both sides at right angles. The building is Renaissance in style, and is faced with deep red bricks. The window dressings and horizontal bands are of Bath stone. Accommodation is provided for eighty-four patients, as follows :—A medical ward for twelve males, a similar ward for twelve females, two surgical wards for twelve males each, a surgical ward for twelve females, and a children's ward for twelve patients. Accommodation is also provided for twelve beds for isolation cases. The building was erected by Messrs. A. S. Morgan & Co., from designs by Mr. R. J. Lovell, of London. The plumbing and sanitary apparatus, electric light installation, electric bells, &c., were fitted by Messrs. R. Alger & Sons, Newport. The arrangements for the electric lighting were carried out under the direction of Messrs. Wallace-Jones & Dent, consulting engineers, Westminster.

Dobbie Hall, Larbert, Stirling.—The new hall at Larbert, built and presented to the district by Major Dobbie, was opened on the 5th inst. by the Duchess of Montrose. The building comprises both a large and a small hall. The latter is to the front, and has accommodation for about 200 persons. The main hall, which is lighted by ten large windows, accommodates 700 persons below and 300 persons in the gallery which runs round three sides of the building. There is a wide recessed platform at the end, framed in by an ornamental archway and flanking pillars. Adjoining the platform are retiring-rooms and other accommodation. To the right of the main entrance of the building there are also cloakrooms, ladies' retiring-rooms, and a kitchen with a lift to the service-room on the floor above. The architects were Messrs. A. & W. Black, Falkirk.

SANITARY AND ENGINEERING NEWS.

Sewage Disposal, Clay Cross.—The Clay Cross Urban District Council have accepted a scheme of sewage disposal for their Urban District prepared by Mr. Harry W. Taylor, A.M.Inst.C.E., of Newcastle-on-Tyne and Birmingham. The sewage will be treated bacterially, the cost being 6,000*l.*

Bridge, Newcastle.—A new steel bridge over the Tyne, between Newcastle and Gateshead, which has been completed at a cost of 80,000*l.*, was opened on Tuesday. The bridge has been built on

the exact site of the bridge that existed there previously, and traffic has been carried on uninterruptedly during its construction. The new structure was built round about the old bridge, which was removed piecemeal. The engineers were Messrs. Sandeman & Moncrieff, Newcastle, and the contractors were Messrs. William Arrol & Co., Glasgow.

LINCOLN WATER SUPPLY.—The Corporation of Lincoln, having been advised by geologists as to the feasibility of obtaining an additional supply of water from the New Red Sandstone, consulted Mr. Percy Griffith, Assoc.M.Inst.C.E., F.G.S., of Westminster. Specifications having been prepared, tenders were invited for a boring 2,176 ft. deep, lined with 30-in. tubes for a depth of 400 ft., and terminating not less than 12 in. diameter. Seven tenders were received for the work, and the Corporation, on the advice of their engineer, have now accepted that of Messrs. Charles Chapman & Sons, Limited, of Salford, amounting to 14,605*l.* The time allowed for the completion of the work is four years. The following is a list of the tenders received :—Thomas Matthews, Pendleton, 21,645*l.*; W. Hill & Co., Westminster, 19,630*l.*; Vivians Boring, &c., Company, Limited, Whitehaven, 18,471*l.*; British American Well Works, London, 18,000*l.*; Stourbridge Well Boring Company, Stourbridge, 17,947*l.*; Charles Chapman & Sons, Limited, Salford (accepted), 14,605*l.*; John Thom, Patricroft, 11,970*l.*

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENTS.—Messrs. W. C. Banks & Son, architects, have removed their City offices from 39A, Gracechurch-street to 5, Adelaide-place, London Bridge, E.C.—— Messrs. Harris & Wardrop, builders and contractors, of 10 to 14, Wallwood-street, Limehouse, E., have taken into partnership Mr. Clarence Gregory and Mr. James Wolfe King, who have assisted them for many years in the management of their business.

THE HOUSING QUESTION IN LIVERPOOL.—Dr. E. W. Hope, the medical officer of the city, has made in the following terms a representation to the Housing Committee of the Corporation concerning the buildings in the Hornby-street and Upper Mann-street areas :—"In my opinion, within these areas there are certain houses, courts, and alleys which are unfit for human habitation, and that the narrowness, closeness, and bad arrangements and bad condition of the streets and houses, and groups of houses, within such areas, and the want of light, air, ventilation, and proper conveniences, and other sanitary defects, or one or more of such causes, are dangerous or injurious to the health of the inhabitants, either of the buildings in the said areas, or of the neighbouring buildings, and that the evils connected with such houses, courts, and alleys, and the sanitary defects in such areas, cannot be effectually remedied otherwise than by an improvement scheme for the rearrangement and reconstruction of the streets and houses within such areas, or of some of such streets and houses." The Committee have adopted the appended resolutions :—"That it be recommended to the Council that, having taken into consideration the official representation of the medical officer of health, dated July 19, 1901, and being satisfied with the truth thereof and of the sufficiency of their resources, the two areas described in such representation are hereby respectively declared to be unhealthy areas, and that an improvement scheme be made in respect of such areas." "That the Town Clerk be instructed to prepare a draft scheme and take all other requisite steps to carry the same into effect under and in accordance with the provisions of the Housing of the Working Classes Act, 1890, and that the surveyor prepare the necessary plans, particulars, and estimates." Other recommendations of the Committee are as follow :—"That the tender of Mr. William Hall, 60, Christian-street, Liverpool, for the erection of labourers' dwellings in Newsham-street, Kew-street, and Arley-street, for the sum of 20,689*l.*, be accepted." "That the members appointed by the resolution of the Housing Committee of July 19, 1901 (in addition to the Chairman and Deputy-Chairman), to visit various towns which have carried out schemes under the Housing of the Working Classes Act, 1890, visit London and Plymouth, that six other members be appointed to visit Manchester and Salford, and that six other members be appointed to visit Glasgow, and that the resolution of the Housing Committee of June 21, 1901, confirmed by the Council on July 3, 1901, be varied accordingly."—*Liverpool Mercury.*

THE STRAND IMPROVEMENTS.—On the 7th inst. at the Guildhall, Westminster, Mr. John Troutbeck, sitting as High Bailiff, and a special jury had before them the case of Diprose *v.* the London County Council, which was a claim for compensation for the compulsory acquisition of the claimant's premises in New Church-court and White Hart-street, W.C., for the purposes of the Strand improvement scheme. Mr. Edward Boyle, K.C., appeared for the claimant, a printer and bookbinder, and Sir Edward Clarke, K.C., and Mr. Edward Morten represented the London County Council. Mr. Boyle said the case was a very important one, involving as it did the total annihilation of his client's business. It had been agreed between the parties that the average net profits amounted to 1,119*l.* per annum. Under the name of Diprose Brothers his client had been in business for a great number of years. In round figures they were claiming 17,700*l.*—Mr. Howard Martin, surveyor, of Chancery-lane, said the freehold premises were worth at least 16,654*l.* From the average net profit of 1,119*l.* they had to deduct the rent, which left a clear profit of 590*l.* Putting that at two years' purchase it would bring the total amount of the claim up to 17,712*l.*, exclusive of the value of the fixtures and machinery, with regard to which the agreed price had been fixed at 3,000*l.* Mr. Pilditch, surveyor to Lord Salisbury and the Duke of Bedford, and Mr. James Green, of Chancery-lane, supported Mr. Martin's figures, and the claimant's case closed. Several surveyors, including Mr. Farmer (Debenham, Tewson and Farmer), Mr. Samuel Walker, of Moorgate-street, and Mr. Herbert Furber, of Warwick-court, Gray's-inn, estimated the total value of the claimant's property at 14,279*l.* The jury, after some deliberation, awarded the claimant 16,700*l.*, including the 3,000*l.* agreed upon for the machinery, &c.

BUILDING IN CHRISTIANIA (according to a report dated last month, from Mr. Dundas, British Consul-General in Norway) has suffered a check, and the same stagnation has shown itself in the building trade as in the property market, only that it is, if anything, rather more marked. In the first half of 1900, 156 larger and 248 lesser buildings were reported as begun; during the latter half, 130 larger and 217 lesser, or a total for the year of 286 larger and 465 lesser buildings. The majority of these were dwelling houses. The building speculation set in in 1896, when 1,093 buildings of all descriptions were begun, and it attained its maximum in 1898 with 1,605. In 1899, it dropped to 1,398, and last year had fallen to 751—a relapse in two years to what Christiania was building in 1893. The decline of building has been followed by some decline in rents, which had risen considerably of late years.

NORTH LONDON HOSPITAL FOR CONSUMPTION.—An anonymous donor has contributed a sum of money to the funds of the hospital for the erection of a country branch and convalescent home for 100 beds to which patients can be transferred for "open air" treatment from the hospital at Mount Vernon, Hampstead. The same donor has also undertaken to endow that branch with an income of 1,000*l.* per annum; thus his gift exceeds a capital sum of 100,000*l.* The Committee of Management have accordingly agreed to purchase for the new buildings a site of 60 acres lying upon sand and gravel at an altitude of about 350 ft. on the borders of Hertfordshire. The hospital buildings at Mount Vernon were begun in 1880 after Professor Roger Smith's plans and designs, which were chosen by the Committee in competition. The western block was then erected. In 1892-3 was added the central block for thirty additional patients, by Messrs. L. H. & R. Roberts, from designs prepared by Messrs. Roger Smith, Son, & Gale (since Roger Smith & Son), and illustrated in the *Builder* of December 31, 1892. The later extension comprises the chapel, dispensary, out-patients' department, two ward-floors, and an attic floor for the kitchens and rooms for the nurses and servants.

KING'S COLLEGE, LONDON.—The following is the list of the successful students in the Division of Architecture at this college :—*Architectural History* (third year): Silver Medal and Prize of 2*l.* in books, Mr. S. C. Ramsey. *Architectural Studio*: Silver Medal and Prize of 2*l.* in books, Mr. S. C. Ramsey; Bronze Medal and Prize of 1*l.* in books, Mr. G. W. Rogers; Bronze Medal and Prize of 1*l.* in books, Mr. L. K. Wright. *Architecture and Building Construction*: Silver Medal and Prize of 2*l.* in books (second year), Mr. A. H. Bristow; Bronze Medal and Prize of 1*l.* in books (second year), Mr. T. H. Vitty; Silver Medal and Prize of 2*l.* in books (first year), Mr. F. R. Fairmaner; Bronze Medal and Prize of 1*l.* in books (first year), Mr. S. C. Ramsey. *Architectural History*: the Professor's Prize for Best Note Books (third year), Mr. G. W. Rogers. *Building Construction*: the Professor's Prizes for Best Note Books (second year), Mr. L. Baldasano-y-Lopez; (first year), Mr. José P. Katigbak and Mr. Alfredo Rodriquez. *Certificates*: *Building Construction* (second year), W. J. Marlow*; O. C. Thompson*; A. H. Imber† and E. A. Soames†; J. Gardner† and E. Karam†; E. Woodward†; R. M. Smith†; G. P. Geen† and H. Osmond†; H. C. Swayne†; (first year), R. V. Gregory*; T. J. R. Kiernan*; J. H. P. Bilbrough†; G. H. Rutland†; G. W. N. Rose†; J. P. Katigbak†. *Architectural History*: G. W. Rogers.†

SOCIETY OF ARTS.—At the last meeting of the Council the following were appointed to form the Applied Art Section Committee for the ensuing year :—Sir William Henry Preece, K.C.B. (Chairman of the Council); Sir George Birdwood, K.C.I.E. (Chairman of the Committee); Thomas Armstrong, C.B.; Professor A. H. Church, F.R.S.; Caspar Purdon Clarke, C.I.E.; Alan S. Cole; Sidney Colvin, M.A.; Walter Crane; Lewis Foreman Day; I. Hunter Donaldson; Major-General Sir John F. D. Donnelly, K.C.B.; Arthur Evans, F.R.S.; Sir John Evans, K.C.B.; Hon. Sir Charles W. Fremantle, K.C.B.; J. Starkie Gardner; William Gowland, F.S.A.; Arthur Lasenby Liberty; Sir Villiers Lister, K.C.M.G.; T. Buxton Morrish; J. Hungerford Pollen; Sir Edward J. Poynter, P.R.A.; Sir Walter S. Prideaux; Sir W. C. Roberts-Austen, K.C.B., F.R.S.; Alexander Siemens; A. B. Skinner, B.A., F.S.A.; John Sparkes; R. Phené Spiers, F.S.A.; Hugh Stannus, F.R.I.B.A.; H. H. Statham, F.R.I.B.A.; Joseph William Swan, M.A., F.R.S.; Carmichael Thomas; John I. Thornycroft, F.R.S.; Sir Thomas Wardle; Henry B. Wheatley, F.S.A. (Secretary).

PROPOSED MUNICIPAL LODGING-HOUSE, SHEFFIELD.—The Sheffield Health Committee recommended the City Council at the meeting on Wednesday to proceed with the erection of a municipal lodging-house on the Crofts area, at an estimated cost of 27,000*l.* In a Report on the matter, prepared jointly by the City Surveyor and the Medical Officer of Health, it was stated that there are forty common lodging-houses in Sheffield. The plans of the City Surveyor (Mr. Wike) are for a lodging-house with 374 beds.

BRADFORD CORPORATION AND THE BUILDING TRADE DEADLOCK.—A deputation from the master builders of Bradford interested in the local dispute in the building trade had an interview on the 8th inst. with the Finance and General Purposes Committee of the Bradford Corporation. The workmen have already had interviews with the Committee. It was pointed out that the men had refused to agree to arbitration. The Town Clerk ruled that it would be illegal for the Committee to take any action in the matter. The position is therefore unchanged. At Tuesday's meeting of the Bradford City Council Mr. E. J. Smith moved the following resolution arising out of the dispute :—"That the resolution passed by the Council on December 13, 1898, with reference to the insertion in Corporation contracts of provisions as to the minimum standard rate of wages be rescinded, and that in lieu thereof provisions to the following effect be inserted in all future contracts :—Contractors shall undertake that in carrying out their contracts they will pay the rate of wages and observe the hours of labour recognised between the respective trades-unions and employers as current for the time being in the locality in which the work to which the contracts relate is to be performed. Contractors will also be required to give an assurance that for three months preceding the date of their tenders they have paid to their workpeople not less than the recognised rates of wages and have observed the recognised hours of labour. They must undertake that in the event of their giving false assurances they shall pay as damages to the Corporation a sum equal to 5 per cent. on the whole of the work completed at the date when such false assurance was made."

* Certificate of Distinction. † Certificate of Merit.

CAPITAL AND LABOUR.

BUILDERS' LABOURERS, SWANSEA.—The strike of Swansea builders' labourers, which has lasted fifteen weeks, ended on Saturday last, the men agreeing to return to work at the old rate of wages, viz., labourers 5½d. per hour, and scaffolders 6d. per hour.

NORTH DERBYSHIRE STONE TRADE.—It is stated that the North Derbyshire stone trade strike has practically ended in favour of the masters. After twelve weeks' stoppage the men are resuming work. The fight has cost the union 1,200*l.* in strike pay, and the loss to the eight firms concerned is estimated approximately at 2,000*l.* The strike was for an advance of 1d. an hour.

LEGAL.

RIVAL AUTHORS OF TIMBER CALCULATORS IN LITIGATION.

THE case of Greenwood *v.* Barker came before Mr. Justice Farwell in the Chancery Division on the 8th inst. It was an action by Mr. J. H. Greenwood, who claimed to be the author and registered proprietor of a pamphlet entitled "Calculator of Prices of Small-sized Timber," and also of a book called "Greenwood's Timber Calculator"; also "How to Check a Timber Merchant's Invoice," "The Inch by Inch Method," &c. The defendant, Mr. J. R. Barker, recently published a book called "The Timber Merchants', Builders', and Contractors' Calculator," and the plaintiff claimed an injunction to prevent the defendant from the alleged infringement of his copyright. The defendant denied that he had infringed the plaintiff's copyright, and alleged that he had written and compiled his book independently and without any improper use of the defendant's works.

In the result his Lordship dismissed the plaintiff's action with costs.

IMPORTANT POINT UNDER THE PUBLIC HEALTH ACT, 1875.

THE case of King's College, Cambridge, *v.* the Uxbridge Rural District Council came before Mr. Justice Byrne in the Chancery Division on the 8th inst., on an application by the plaintiffs as Lords of the Manor of Ruislip, and of a Mr. Deane,

an adjoining owner, to restrain the defendants from proceeding with the pumping station now being erected by them upon a strip of unenclosed land in the parish of Ruislip, on the north side of the high road from Uxbridge to London, belonging to the plaintiffs, and from otherwise trespassing on the said strip of land.

It seemed that the defendants intended to carry out a scheme for the disposal of the sewage of the parish of Ruislip, which included the town of Northwood, the hamlet of Eastcote, and the village of Ruislip, by which the sewage of the whole parish was to be conveyed to one common outfall for treatment. The sewage of Eastcote, owing to the levels, had to be lifted in order to convey it to the outfall site, and then pumped along a rising main from Eastcote to Ruislip, and for this a pumping station near the spot in question was necessary. The defendants alleged that the strip of land was part of the highway, but the plaintiffs claimed it, and considered that the proposed erection was calculated seriously to damage the adjoining land, which was now developing for building purposes, and the present action was commenced in order to stop the defendants going on with their works.

The defendants alleged that the pumping station was essentially a part of the sewage system of the district, as without some such means it was impossible for the present system of sewerage to deliver the Eastcote sewage on to the outfall site. They further alleged that at the utmost it was only a question of compensation for any damage done and not a case for an injunction.

At the conclusion of the arguments of counsel his lordship, in giving judgment, said that, in his opinion the strip of land in question belonged either to the lords of the manor or to the adjoining owner, and for the purposes of the present application it did not matter to which, as both were joined as co-plaintiffs. The question to be decided was whether the defendants had any right, without giving any notice to the plaintiffs, to go on the land for the purpose of erecting the pumping station. His lordship thought they had no such right. A Local Authority had no right under the Public Health Act to carry a sewer under private property without notice. The further point was raised as to whether the pumping-station was a "sewer" at all within Section 16 of the Act. He did not think that a large building like this pumping-station was part of a sewer, but he did think that it came within Section 27 and was an apparatus "for the distributing or otherwise disposing of sewage" for which land could and would have to be purchased. For these reasons he thought that the plaintiffs were entitled to an *interim* injunction to restrain defendants from entering upon or taking the land in question otherwise than in accordance with their statutory powers not being powers under Section 16 of the Act.

Judgment accordingly.

Mr. Norton, K.C., and Mr. R. J. Parker appeared as counsel for the plaintiffs; and Mr. Levett, K.C., and Mr. Lushington for the defendants.

CASE UNDER THE LONDON BUILDING ACT, 1894:

THE DISTRICT SURVEYOR OF EAST HACKNEY (SOUTH) AND NORTH BOW *v.* J. BEHREND.

This was a case of reconstruction of roofs to dwelling-houses, neglecting to renew the outside of the old flues where passing through the roofs, and to afford facilities for inspection by the District Surveyor. It was heard at Worship-street Police-court on the 8th inst., before Mr. J. R. W. Bros.

Defendant, a builder of Cambridge-road, E., had completely reconstructed the roofs of three dwelling-houses without in every case renewing the outside of the flues where they passed through the roofs against which the roof timbers were placed, and had covered up the roofs so that they could not be inspected, though repeatedly asked by the District Surveyor to allow him to inspect them.

Defendant was ordered to execute the work and to open up the roofs for the inspection of the District Surveyor within three weeks: 12*s.*, costs allowed in each of the three cases.

LONDON COUNTY COUNCIL AND ADVERTISEMENT HOARDINGS.

At Worship-street Police-court, a few days since, Mr. Chilvers, solicitor, appeared in support of two adjourned summonses taken out by the London County Council against the Partington Advertising Company in respect of a hoarding near the Great Eastern station at Bethnal Green.—Mr. Philbrick defended. On the previous occasion the defendant company had given an undertaking through their solicitor, that the work required in the way of strengthening the hoarding should be done within a week. — Mr. Chilvers explained that the summonses had been taken out under Section 83 of the London County Council Act for failing to remove a temporary structure when required under Section 200, Sub-Section 3, for retaining such a structure after due notice to remove. The facts and notices were admitted, and the defendants' foreman (Henry George Townsend) was called to prove that the work had been done and that he had failed to get the certificate simply because the District Surveyor could not be found at his city office. Just at the moment Mr. Notley, the District Surveyor, entered the Court, expressed himself satisfied with the work done on the hoarding, and produced his certificate to that effect. Mr. Chilvers pressed for a penalty on the ground that the hoarding had been kept up eighteen months after the licence had expired, and Mr. Philbrick urged in reply that the London County Council were responsible for at least twelve months of the delay.—This Mr. Notley admitted, and in the end the magistrate imposed a penalty of 1*s.* and 23*s.* costs on the first summons and adjourned the other summons *sine die* to see whether the London County Council granted a new licence for the structure.—*Morning Advertiser.*

IMPORTANT ACTION UPON AN AWARD.

In the King's Bench Division, on the 12th inst., Mr. Justice Lawrance delivered a considered judgment in the case of the Long Eaton Recreation Grounds Company, Limited, *v.* the Midland Railway Company. This was an action by the plaintiffs upon an award. The facts sufficiently appear from the following précis of the written judgment of his lordship.

The judgment stated that the defendants were the freeholders of land situate on the north-west of Springfield-avenue, Long Eaton, Derbyshire, which they purchased from grantees of the plaintiffs. The conveyances from the plaintiffs to these grantees contained covenants that they would not erect, or permit to be erected, any erection or building of any kind except a fence wall not more than 2 ft. high, with suitable iron palisades, nearer to Springfield-avenue than the line drawn on the plan annexed to their conveyance, and marked "building line," and would not erect any buildings on the land conveyed other than private dwelling-houses, with proper conveniences thereto, fronting Springfield-avenue, of a certain value, and would not carry on upon the land conveyed any trade or business of a noisy or offensive character. The defendants, when they purchased the land in question from these grantees of the plaintiffs, took with notice of these restrictive covenants. The defendants had constructed a railway embankment with a permanent railway on the land, and it was admitted that the embankment encroached beyond the building line. Instead of a 2-ft. fence wall they had erected a post and rail fence nearer Springfield-avenue than the building line, and defendants intended to run trains along the railway. In his lordship's opinion each of these specified acts, if done by a private purchaser of the defendants' land, would have been a breach of the restrictive covenant for which such a purchaser would be liable to be restrained by injunction. On defendants' behalf it was argued that a railway embankment was not a "building" within the meaning of the covenant, but his lordship held that it was a "building" within the meaning of the covenant, the object of which was to maintain a uniform range of buildings. The question to be decided was whether the land of the plaintiffs had been "injuriously affected" by the execution of these works within Section 68 of the Lands Clauses Act, 1845. His lordship held that there had been a physical interference by the defendants with the right of the plaintiffs to have no buildings other than those of a certain size and description, as specified in the covenant, erected on land which the defendants had taken. There had been a similar interference in the plaintiffs' right to have the building line regarded, and the brick wall built as provided, if built at all. And there had also been an interference with their right by express covenant that this land should not be used for any business of a noisy character. His lordship thought that all these rights were rights which the plaintiffs were entitled to make use of in connexion with their property on the east side of Springfield-avenue. They only existed for the purpose of maintaining and improving that property, and any covenant entered into with them must necessarily be entered into with a view to, and in connexion with, the land to which the plaintiffs were indebted for their name and existence. His lordship had no doubt whatever that the covenants by the defendants' predecessors in title gave an additional market value to the plaintiffs' property, and that, by reason of the defendants' interference, the plaintiffs' property, as a property, was lessened in value apart from the uses to which they were at present putting it. The real question on this part of the case was whether the benefit of a restrictive covenant was matter for compensation if none of the land was taken for the benefit of which the restrictive covenant was imposed. His lordship thought that the claim for compensation was well founded under the Lands Clauses Act. He thought that upon all these claims the plaintiffs were entitled to compensation, and gave judgment for them for 650*l.*, the amount of the award with interest.

Mr. Young, K.C., and Mr. W. H. Stevenson appeared for the plaintiffs; and Mr. Baggalay, K.C., Mr. W. J. Noble, and Mr. C. H. Sargant for the defendants.

THE ACTION AGAINST THE BRADFORD CORPORATION.

Mr. Justice Joyce, in the Chancery Division on the 3rd inst., delivered a considered judgment in the case of Ambler & Sons, Limited, *v.* The Bradford Corporation. The case was reported in the issue of the *Builder* of August 3.

In this case the plaintiffs claimed an injunction against the defendants to restrain them from obstructing the flow of water in Bradford Beck and from allowing certain sluice gates already erected across the beck to remain. The plaintiffs claimed from the defendants 33,794*l.* for damage caused to them on July 12, 1900, by reason of the obstruction. Defendants alleged contributory obstruction on plaintiffs' part, denied obstruction of the kind complained of, and set up that the damages were the result of *vis major.* The action turned upon whether the damage done to the plaintiffs' premises was caused by the defendants' interference with the Bradford Beck, which passed under the plaintiffs' works, and which had so passed since the erection of the works in 1864. Various areas of land had been purchased by the plaintiffs since 1864, until they became owners of both sides of the beck. In 1899 defendants, at some distance below plaintiffs' premises, erected certain sluices in connexion with their electric lighting undertaking. On July 12, 1900, during a heavy thunderstorm, the beck, in which there was usually from 6 in. to 12 in. of water, was flooded and did damage to the plaintiffs' premises to the extent of upwards of 33,000*l.*, which plaintiffs contended would not have happened if the flow of the beck had not been interfered with by the defendants' works.

His lordship dismissed the plaintiffs' action with costs, on the ground that the Corporation's works did not materially contribute to the damage caused by the flooding of the Bradford Beck.

RECENT PATENTS:

ABSTRACTS OF PATENTED INVENTIONS.

6,916.—An Appliance for the Governors for Gas Burners: *F. Goodson.*—In the plug cock are passages for the gas which is admitted through a socket, and is then conveyed through one of the passages into a space over a floating diaphragm, and thence, through other ports, tubes, and a chamber, to the outlet, there is another passage that communicates with a space beneath the diaphragm; a recess in the cap throttles the upper opening of one of the latter tubes with the rising of the diaphragm, so that the governor will continue to operate when the flame has been lowered by means of the plug tap; modifications of the invention provide for those forms whereby the gas is conveyed through horizontal passages, or downwards through the governor which is after the kind specified in Nos. 24,293 of 1898, and 9,504 of 1899.

6,920.—Cranes: *A. E. Williams.*—The lifting-rope is passed from the winding-drum over a pulley at the end of the jib, and so over a pulley upon a travelling carriage to the skip, the latter pulley being carried by a frame that rotates freely about an axis parallel to the jib. From a second drum upon the axle of the main drum a rope is passed around pulleys at the top of the crane, and thence to a balancing weight, and from the inner end of the travelling carriage a rope is passed to another drum, whence another rope is passed to a balancing weight, so that if there is no load the latter weight impels the carriage inwards along the jib, but a load will tend to overpower the action of the weight and to impel the carriage outwards along the jib, at the outer end of which it can be retained with a catch.

6,936.—Electrical Switches: *E. F. Moy & E. F. Moy, Limited.*—As an improvement of the quick-break switch specified in No. 17,560 of 1890 the inventors fit a spindle-plate, which has two projecting stops turned upwards; upon the base and through the plate they insert the rigid spindle; one of the stops engages with a lug that projects downwards from one of two plates which hold the bridge-piece, a spring effects a quick break, and the handle which is disposed loosely upon the spindle has pins that work in slots in the other of the two plates for making contact. The contrivance is described as being available for single, throw-over, or double-pole switches.

6,951.—Electrical Current Meters: *L. J. Steele.*—For use as an am-meter or volt-meter is devised a tapered iron core hung upon the arm of a horizontal bar that is carried only by the inner ends of flat spiral springs, of which the outer ends are clamped on to a support which a screw adjustably holds against a slotted back-plate; a pointer at one end of the bar traverses a graduated arc; a stationary coil acts upon the core from which an extension moves with slight friction in a pierced guide.

6,977.—A Hinge: *J. Rüegg.*—The flaps of the hinge are cut away, whilst enough of them is left to prevent splitting of the screw-holes, and the flaps can be pressed into the wood without injury to it.

6,993.—Disinfection of Lavatories, Urinals, &c.: *C. Fell.*—For purposes of disinfection the

supply cisterns are made so as to contain perforated vessels which have been charged with chloride of lime mixed with water to the consistency of mortar.

6,996.—WORKING OF WOOD: *I. Chorlton and W. Wentworth.*—The rotatory cutters of a planing and moulding machine are mounted so as to give a progressive or slanting cut by setting the edge of each cutter angle-wise in reference to the axis of the imaginary cylinder which the edges cut out. The cutters are clamped with plates on to the cutter-block, the plates being bolted at one end and fulcrumed in a recess at the other end. The invention extends to cutters and cutter-blocks for planing flat, as well as for planing flat and curved contours.

7,010.—AN APPLIANCE FOR DOMESTIC AND OTHER FIRES, &c.: *J. Whitehead.*—Air is conveyed through a cone-shaped tube, which should have a D-section, that is to be attached to the fire-bars; in one form of the tube it may be inserted between two bars, having upon it a projection of which the inclined surface will press against the upper bar, and a projection that will press against the lower bar.

7,018-9.—SAFETY APPARATUS FOR USE WITH LIFTS: *J. Fletcher.*—Side-plates on a cross-beam are slotted for the hoisting-rope shackle which is held with hooks that are pivoted upon an axis between the plates; the hooks are linked at their lower and outer ends to sliding-bars, and a roller at the outer end of each bar will—if over-winding occurs—strike a roller upon the shaft so as to drive the bar inwards and liberate the shackle. The lower ends of rods that carry the beam are inserted into boxes and have springs which the tension of the rope will press under normal conditions; the fall of the beam at the release of the rope will throw dogs into engagement with fixed sectional racks, of which the outer ones are plain and the middle one is toothed. 7,019.—A fixed and a movable cross-beam are fitted on the top of the cage, the lower ends of hanging rods inserted into fixed boxes are provided with rubber springs to be pressed together, under normal conditions, by the tension of the lifting-rope, but if the rope is broken the springs will lower the movable beam, and so (by the action of links) cause pivoted dogs to engage with a double rack-bar for holding up the cage. The rack-bar is bolted between two plain sections that engage with guide boxes upon the cage; balancing cables are passed from the movable beam to pulleys upon the cross-beam, and their tension contributes to the lowering of the latter.

7,024.—A VENTILATING SHAFT TOP: *W. H. Gaskell.*—A flanged tier of louvres carries a pair of pyramids or cones having openings at their bases; in another form the outer cone and the lower louvres are discarded for a small ring of arches that rest upon the inner cone.

7,056.—TANKS FOR BUILDINGS: *H. R. Vaughan.*—The concrete top floor, which is supported with iron or steel joists, and the sides or parapet (being of brick laid in concrete) are coated with a roofing composition, and layers of roofing-felt are nailed on to the corner fillet and the wooden wall-plate, the space between the felt and a wall built within is filled with the composition; two half-rings clamp the felt bottom to a bottom flanged pipe, which is bolted to cross-joists, or the pipe can be screwed at both its ends for ribbed washers which bear underneath the concrete and upon a washer.

7,094.—DRINKING TROUGHS FOR CATTLE: *J. H. Hanson.*—On the trough, for an automatical supply, is pivoted an inner vessel of which one side is pierced and the hinged cover is, under normal conditions, held horizontally with a spring, but as the animal drinks the cover is pressed downwards—the cover can be retained in either position with sliding bolts. For the supply a water vessel is placed in a water tank, or is joined to a service pipe, and a float in the vessel works a valve in a water pipe which is set in union with either a supply pipe or a discharge pipe that will empty the vessel and troughs by a three-way cock. A nut upon the float serves for the adjustment of the valve.

7,096.—ARTIFICIAL STONE: *A. Grünberg.*—For an artificial stone free from air the dry components are fed into a mixing chamber from which the air has been exhausted before water is admitted, then water—as free from air as is possible—is circulated from a reservoir through a pump, the mixing-chamber, and the stirring-apparatus; the tubular vertical shaft of the stirring-apparatus is joined to hollow-bladed stirring-arms faced with perforated metal and clamping-rings stretch straining-cloths over the blades.

7,119.—CHIMNEY TOPS: *J. Symington.*—Horizontal slots are cut in the sides of the uptake, which is tapered slightly, and curved rising baffles or guide-plates are arranged behind the slots of which the tongues are bent outwards.

7,136.—PROCESS OF MOULDING BRICKS: *W. Dünkelberg.*—A set of moulds are formed by clamping metal lining and partition plates together between side and end pieces with bolts so that the moulds may be taken to pieces; grooves cut in the side and end plates will take lugs or feathers upon the lining-plates which are fastened with melted sulphur, which may also be used for the packing-pieces between the ends and sides of the mould and the linings.

7,139.—MANUFACTURE OF PORTLAND CEMENT: *E. H. Hurry and H. J. Seaman.*—After the materials have been calcined and mixed with an excess of lime they are heated and fused, and then, when solidified, are pulverised. For purposes of fusion is devised a vertical blast furnace, having a sheet-iron shell and a lining of some refractory substance, and a chamber at its top in which the components are in the first place partially calcined. When the resultant fluid mass has been tapped into a car, it is there granulated with a water spray, a hoisting engine lifts the car, and its contents are discharged from the hopper and so to a grinding mill. (See also Nos. 23,145 of 1895, and 2,896 and 2,896A of 1898.)

7,164.—A SPANNER: *C. Titus.*—A head around a loose eye, with openings for two differently sized nuts, is attached at each end of the handle. The teeth of the eye take two spring pawls which are to be worked with a pivoted loop that engages with their tail ends for tightening up or loosening a nut; either one of the pawls is set into gear, and the handle is reciprocated.

7,182.—A METHOD OF GLAZING: *H. J. C. Bates.*—For glass houses are employed pierced and flanged triangular plates or clips which affix the panes to plain sash bars and rafters, the clips or plates being secured with screws or nails.

7,184.—A MACHINE FOR CUTTING DOVETAILS OF WOOD: *L. M. Messinesi.*—A rotating tool is fed sideways across one board, for cutting the mortises, whilst for cutting the tenons the recesses between them are cut out by the feeding lengthwise of another rotating tool (of which the adjustable blades are to be fixed with set-screws) against another board; the sides of the tenons and mortises will fit exactly, as they have the same degree of curvature; a tool having convexed sides will cut the mortises of concealed dovetailed work; it is fed sideways into the end of one of the boards, so as to leave a portion of the board at the end of every mortise.

7,264.—MEANS OF REMOVING RUST FROM IRONWORK: *Baron de G. J. C. M. Liebhaber.*—The girders, &c., are covered with a paste composed of free sulphuric acid and mixed with a base of china clay, lime, plaster of Paris, or similar suitable substances; to concentrated sulphuric acid are added water, together with a small amount of common salt or calcium chloride, &c.; and carbonate of lime is stirred up with the mixture; or limestone may be treated with hydrochloric acid with the addition of sulphuric acid and nitrates; nitric acid may be applied to the cleaned surface, which can then be rubbed with agate or steel.

MEETINGS.

WEDNESDAY, AUGUST 21.

Builders' Foremen and Clerks of Works' Institution.—Ordinary meeting of the members. 8 p.m.

SATURDAY, AUGUST 24.

Northern Architectural Association.—Visit to South Shields.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

July 29.—By T. P. & A. SAUL (at Sleaford).

Ewerby Thorpe, Lincs.—The Waith Farm, 148 a. 3 r. 2 p., f.	£2,550

July 30 and 31.—By DRIVER, JONAS, & Co. (at Chepstow).

Chepstow, Monmouth.—Crossway Green House, Crossway Green Villa, and 16 a. 2 r. 28 p., f.	2,530
Crossway Green, building land, 12 a. 1 r. 5 p., f.	1,250
Devauden Green, Mon.—Two freehold cottages and 12 a. 0 r. 19 p.	335
Twelve enclosures of land, 13 a. 1 r. 9 p., f.	250
Four freehold cottages and 18 a. 3 r. 1 p.	375
A freehold farm, 23 a. 1 r. 8 p.	510
Seven freehold cottages and 28 a. 1 r. 34 p.	850
Various enclosures, 15 a. 3 r. 38 p., f.	290
Llansay, Mon.—Wern Farm, 86 a. 1 r. 19 p., f.	1,200
Cwrt-Brychan Farm, 260 a. 2 r. 30 p., f.	2,500
Llanfair Farm, 110 a. 0 r. 8 p., f.	1,070
Dyffryn Farm, 173 a. 3 r. 16 p., f.	1,650
Llanvihangel-tor-y-mynydd, Mon.—Eight enclosures of grass land, 36 a. 1 r. 22 p., f.	460
Freehold cottage and 5 a. 2 r. 33 p.	110
Tymawr Farm and Woods, 133 a. 2 r. 33 p., f.	1,300
Four freehold cottages and 17 a. 0 r. 26 p.	420
Cobblers Plain Farm, 12 a. 2 r. 13 p., f.	290
Three pasture fields, 4 a. 0 r. 33 p., f.	160
Four freehold cottages and 2 a 2 r. 15 p.	265
Two freehold cottages and 0 a. 2 r. 38 p.	110
Four cottages, chapel, and 14 a. 0 r. 38 p., f.	417
Star Hill Estate, 23 a. 1 r. 37 p., f.	470
Thirteen freehold cottages and 28 a. 1 r. 7 p.	1,125
Llanishen, Mon.—Ten freehold cottages and 31 a. 3 r. 15 p., f.	1,030
Various enclosures, 17 a. 0 r. 10 p., f.	306
The Methodists' Chapel and 8 a. 3 r. 23 p., f.	270
Prysg Wood, 20 a. 3 r. 30 p., f.	190
Cottage residence and 3 a. 1 r. 28 p., f.	160
Chepstow, Mon.—Bridge-st., The Bridge Saw Mills and 1 a. 0 r. 18 p., f.	600

July 31.—By BALCH & BALCH (at Camden Town).

Kentish Town.—39 and 41, Lynton-st., u.t. 66½ yrs., g.r. 14*l.*, r. 100*l.*	975

August 1.—By WORSFOLD & HAYWARD and WEST, USHER, & Co. (at Deal).

Deal, Kent.—The Deal and Mongeham Breweries, with sixty-three licensed houses, &c., f.	93,000
By J. M. LEEDER & SON (at Swansea).	
Llansamlet, Glamorgan.—The Foxhole Tin Plate Works, u.t. 31, 60, and 69 yrs., r. 299*l.*	£4,500

By G. E. SWORDER & SONS (at Bishop's Stortford).

Anstey, Herts.—Two enclosures, 11 a. 3 r. 3 p., f.	225
A freehold tenement and 8 a. 1 r. 37 p.	230

August 2.—By G. B. HILLIARD & SON (at Chelmsford).

Woodham Ferris, Essex.—Holland's Farm, 39 a., f.	400

By H. J. AUSTEN & SONS (at Tunbridge Wells).

Wadhurst, Sussex.—Beggar's Bush Farm, 37 a. 1 r. 0 p., f.	1,130
Weston's and Partridge's Farms, 87 a. 2 r. 39 p., f.	1,500
Olive's Wood, &c., 14 a. 2 r. 5 p., f.	320
Pimlico Holding, 3 a. 1 r. 17 p., f. and c.	400

By J. M. LEEDER & SON (at Brecon).

Devynock, Brecon.—Cwmwysk Ganol Estate, 122½ a., f. (including timber)	4,170

By DAVID J. CHATTELL.

Chislehurst.—Royal Parade, Clifton Villa and ½ a., f., r. 90*l.*	1,460
Barnes.—72, Lonsdale-rd., part f. and part u.t. 45½ yrs., g.r. 13*l.*, e.r. 65*l.*	550

By GRAVES & SON.

Westbourne-pk.—13, Leamington-rd. Villas, u.t. 55 yrs., g.r. 10*l.* 10s., r. 60*l.*	500
18, Tavistock-rd., u.t. 55 yrs., g.r. 7*l.* 10s., r. 65*l.*	550

By HAWES & Co.

New Malden, Surrey.—Malden-road, a plot of land, f.	235
Thetford-rd., three plots of building land, f.	435

By LEWIS & SPAIN.

Peckham.—308 and 314, Commercial-rd., f. r. 52*l.*	800

August 3.—By SEWELL & BARNES (at Norwich).

Aylsham, Norfolk.—The Manor House and 9 a. 1 r. 14 p., f.	1,400
Three enclosures of land, 29 a. 1 r. 3 p., f.	1,000
Two enclosures of land, 7 a. 2 r. 31 p., f.	500

By THORNBORROW & Co. (at Kendal).

Dillicar, Westmorland.—High Park and Low Park Estate, 197 a. 0 r. 21 p., f.	1,690

August 8.—By CHINNOCK, GALSWORTHY, & CHINNOCK.

Blyth, Notts.—Barnby Moor House and 36 a. 2 r. 35 p., f.	8,000

By J. & W. JOHNSON & Co. (at Masons' Hall Tavern).

Victoria Pk.—Speldhurst-rd., The Earl Derby p.-h., u.t. 21 yrs., r. 100*l.*, with goodwill	2,500

August 9.—By H. J. CHEFFINS.

Clavering, &c., Essex.—Clavering Hall Farm, 506 a. 2 r. 12 p., f.	7,100

Contractions used in these lists.—**F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; e.r. for estimated rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent; yd. for yard.**

PRICES CURRENT OF MATERIALS.

***** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.**

BRICKS, &c.

	£ s. d.		
Hard Stocks	1 14 0	per 1,000	alongside, in river.
Rough Stocks and Grizzles	1 11 0	,,	,, ,,
Facing Stocks	2 12 0	,,	,, ,,
Shippers	2 8 0	,,	,, ,,
Flettons	1 8 6	,,	at railway depôt.
Red Wire Cuts	1 14 6	,,	,, ,,
Best Fareham Red	3 11 0	,,	,, ,,
Best Red pressed Ruabon Facing.	5 5 0	,,	,, ,,
Best Blue Pressed Staffordshire	4 4 6	,,	,, ,,
Do., Bullnose	4 9 0	,,	,, ,,
Best Stourbridge Fire Bricks	4 2 6	,,	,, ,,
GLAZED BRICKS			
Best White and Ivory Glazed Stretchers	13 0 0	,,	,, ,,
Headers	12 0 0	,,	,, ,,
Quoins, Bullnose, and Flats	17 0 0	,,	,, ,,
Double Stretchers	19 0 0	,,	,, ,,
Double Headers	16 0 0	,,	,, ,,
One Side and two Ends	19 0 0	,,	,, ,,
Two Sides and one End	20 0 0	,,	,, ,,
Splays, Chamfered, Squints	20 0 0	,,	,, ,,
Best Dipped Salt Glazed Stretchers and Headers	12 0 0	,,	,, ,,
Quoins, Bullnose, and Flats	14 0 0	,,	,, ,,
Double Stretchers	15 0 0	,,	,, ,,
Double Headers	14 0 0	,,	,, ,,
One Side and two Ends	15 0 0	,,	,, ,,
Two Sides and one End	15 0 0	,,	,, ,,
plays, Chamfered, Squints	14 0 0	,,	,, ,,
Seconds Quality White and Dipped Salt Glazed	2 0 0	,,	less than best.

	s. d.	
Thames and Pit Sand	7 3	per yard, delivered.
Thames Ballast	6 0	,, ,,
Best Portland Cement	34 6	per ton, delivered.
Best Ground Blue Lias Lime	25 6	,, ,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime	12s 6d. per yard, delivere .
Stourbridge Fire-clay in sacks,	28s. od. per ton at rlv. dpt.

[*See also page 165.*

COMPETITIONS, CONTRACTS AND PUBLIC APPOINTMENTS

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

COMPETITIONS.

Nature of Work.	By whom Advertised.	Premiums.	Designs to be delivered
*New Offices, &c.	Hearts of Oak Benefit Society	Premium 100*l.*, 75*l.*, 50*l.*	Nov. 15

CONTRACTS.

Nature of Work or Materials.	By whom Required.	Forms of Tender, &c., Supplied by	Tenders to be delivered
Making-up Rectory Grove	Leigh (Essex) U.D.C.	A. J. Arthy, Council Offices, Leigh-on-Sea	Aug. 20
Houses, Springhill, Aberdeen	Mr. H. M'Lennan	Jenkins & Marr, Civil Engineers, 16, Bridge-street, Aberdeen	do.
Cottages, New Broughton, Wrexham	Mr. W. W. Evans	Davies & Moss, Architects, 2, Temple-row, Wrexham	do.
Disinfecting Station, Feeder-road	Bristol Corporation	T. H. Yabbicom, Engineer, 63, Queen-square, Bristol	do.
Building Work, Old Abbey Church, Bangor, Ireland	.....	H. Seaver, Civil Engineer, 128, Royal-avenue, Belfast	do.
Avenue, Malone-road and Lisburn-road, Belfast	.....	do.	do.
Chapel, Schools, &c., Hoyland Common	.....	W. J. Sykes, Architect, Hoyland, near Barnsley	do.
Hospital, Stonehaven, N.B.	Kincardine County Council	Brown & Watt, Architects, 17, Union-terrace, Aberdeen	do.
Eighteen Houses, &c., Darefield, Yorks	Mr. T. Wilkinson	A. B. Linford, Architect, Wombwell, near Barnsley	Aug. 21
Extensions to Club Buildings, Porth	.....	W. H. Childs, 69, Cymmer-road, Porth, Wales	do.
Schools, Cappoquin, co. Waterford	.....	S. F. Hynes, Architect, 21, South-mall, Cork	do.
Long Wall	Saddleworth U.D.C.	J. H. Reynolds, Surveyor, Council Offices, Uppermill	do.
Widening Pennington-lane, &c., Liverpool	South Lancs. Electric Traction Co.	Kincaid & Co., Engineers, 29, Great George-street, S.W.	do.
Additions to Workhouse	Stroud Guardians	W. H. C. Fisher, Rowcroft, Stroud	do.
Buildings at Gasworks, Hunstanton	New Hunstanton U.D.C.	J. S. B. Glasier, Council Offices, Hunstanton	do.
Granite (500 tons)	South Mimms R.D.C.	G. D. Byfield, 16, High-street, Barnet	do.
Granite Road Metal	Ware U.D.C.	G. H. Gisby, Town Hall, Ware	do.
Four Shops, Woodside, Aberdeen	Northern Co-op. Society, Limited	R. G. Wilson, Architect, Union-street, Aberdeen	Aug. 22
Road Works, &c., Back Astley-terrace, &c.	Tynemouth R.D.C.	A. S. Dinning, 21, Ellison-place, Newcastle	do.
Buildings, &c., Throstle-street	Blackburn Corporation	W. Stubbs, Civil Engineer, Municipal Offices, Blackburn	do.
House, Stables, &c., Bridlington	Mr. J. Burrell	J. Earnshaw, Architect, Carlton House, Bridlington	do.
Building Works, St. Paul's Church, Llanelly	.....	W. Griffiths, Architect, Falcon Chambers, Llanelly	do.
Court and Mortuary, Quakers' Friars	Bristol Corporation	T. H. Yabbicom, Engineer, 63, Queen-square, Bristol	do.
Cottages, &c., near Darlington	Sir T. Wrightson, Bart.	G. G. Hoskins, Architect, Darlington	do.
Additions to Gasworks, Tonypandy	Rhondda U.D.C.	O. Thomas, Engineer, Pentre, R.S.O., Glam.	do.
Additions to Hospital	Stratford-on-Avon Hosp. Comte.	R. Dixon, Architect, Municipal Offices, Stratford-on-Avon	do.
Additions to School, Queensberry-road	Longton (Staffs.) School Board	J. H. Beckett, Architect, Longton	do.
Fire Station, &c., Church-street	Luton Town Council	Borough Surveyor, Town Hall, Luton	Aug. 23
Road Works, Penygraig, Pentre	Rhondda U.D.C.	Surveyor, Council Offices, Pentre R.S.O., Glam.	do.
Additions, &c., to Chapel, Aberdare	.....	T. Roderick, Architect, Ashbrook House, Aberdare	Aug. 24
Chapel, Market Weighton, Yorks	.....	W. G. Smithson, Architect, 13, Bond-street, Leeds	do.
Water Supply Works, Stechworth	Newmarket R.D.C.	F. S. Courtenay, Engineer, Broad Sanctuary, Westminster, S.W.	Aug. 26
Road Works, Thornton-road	Bootle (Lancs) Corporation	Borough Engineer, Town Hall, Bootle	do.
Sewerage Works	Fenny Stratford U.D.C.	J. Chadwick, Engineer, Bletchley, Bucks	do.
Alterations, &c., to Town Hall	Hove (Sussex) Town Council	H. H. Scott, Surveyor, Town Hall, Hove	do.
Lecture Hall, Stewartstown, Co. Tyrone	.....	H. Hobart, Architect, Dromore, co. Down	do.
Cattle Market	Truro Town Council	M. Lea, Engineer, Truro	Aug. 27
Two Culverts, Ludgershall	Aylesbury R.D.C.	W. J. Cook, Surveyor, 69, High-street, Aylesbury	do.
*Water Closets, Fence Walls and Iron Railings	Strand Union	A. A. Kekwick, Architect, 18, Outer Temple, E.C.	do.
*Seaside Homes, Rustington, near Littlehampton	Metropolitan Asylums Board	Rowland Plumbe, Architect, 13, Fitzroy-square, W.	Aug. 28
*Additions to Asylum, Denbigh	The N. Wales Counties Lunatic Asy.	T. M. Lockwood & Sons, Architects, Chester	Aug. 30
Alterations to School	Tynemouth School Board	F. R. N. Haswell, Architect, Tyne-street, North Shields	do.
*Alterations, Camberwell Green	Metropolitan Asylums Board	Office of the Board, Embankment, E.C.	Aug. 31
*Extensions of the Borough Asylum, Middlesbrough	Middlesbrough Corporation	The Clerk, Municipal Buildings, Middlesbrough	Sept. 2
Cookery Centre, &c., Norfolk-street	Boston School Board	J. Rowell, Architect, Market Place, Boston	Sept. 3
*Junior Mixed School, Enfield Lock	Enfield School Board	G. E. T. Lawrence, Architect, 22, Buckingham-street, W.C.	do.
*Drainage Works, Pembury	Tonbridge R.D.C.	W. V. Graham, Engineer, 5, Queen Anne's Gate, S.W.	do.
*Granite Kerbing and Channelling	Hove Town Council	Borough Surveyor, Town Hall, Hove	Sept. 4
Blocks of Buildings, Manston Hospital	Leeds Corporation	E. T. Hall, Architect, 54, Bedford-square, W.C.	do.
School, Holyhead, N. Wales	.....	J. Owen, Architect, Menai Bridge	Sept. 5
*Timber	Metropolitan Borough of Stepney	Borough Engineer, 15, Great Alie-street, Whitechapel, E.	Sept. 9
*Dust Vans, &c.	do.	do.	do.
*Lavatory Buildings	Hertfordshire County Council	County Surveyor, 41, Parliament-street, S.W.	do.
*Schools in Littleworth	Mansfield School Board	Vallance & Westwick, Mansfield	Sept. 16
*Additional Outfall Sewers at Crossness	London County Council	Engineer's Department, County Hall, Spring Gardens, S.W.	Oct. 8
Additions to Workhouse	Brampton (Cumberland) Guardians	T. T. Scott, Architect, 43, Lowther-street, Carlisle	No date
Church Institute, Bulwell, Notts	.....	W. V. Betts, Architect, Bank Offices, Old Basford	do.
Business Premises, Botchergate	Carlisle South-End Co-op. Society	T. T. Scott, Architect, 43, Lowther-street, Carlisle	do.
Cemetry Works, Newtownstewart	.....	E. J. Toye, Architect, Londonderry	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Clerk of Works	Leeds Corporation	4*l.* 4*s.* per week	Aug. 19
Surveyor	Matlock U.D.C.	.....	do.
Inspector of Nuisances	do.	60*l.*	do.
Principal	Wexford Technical School	250*l.*	do.
*Works Manager	Swansea Corporation	.....	Aug. 24
Quantity Surveyor	East Ham U.D.C.	.....	Aug. 26
*Engineering and Surveying Assistant	County Boro' Burton-upon-Trent	Commence at 130*l.* per annum	Aug. 30
*Architectural Assistant	do.	do.	do.
City Engineer and Town and Property Surveyor	Newcastle-on-Tyne Corporation	1,000*l.*	Sept. 10
*Divisional Main Road Surveyor	West Riding Highways Committee	.....	No date
Assistant Engineer	Birmingham & Dist. Drainage Bd.	130*l.*	do.
Accountant	Derwent Valley Water Board	400*l.*	do.
Clerk of Works	Todmorden Borough	State	do.

Those marked with an asterisk (*) are advertised in this Number. *Competitions, p. iv.* *Contracts, pp. iv. vi. viii. x. & xxii.* *Public Appointments, pp. xix. & xx*

PRICES CURRENT (*Continued*).

STONE.

	s. d.	
Ancaster in blocks	2 0	per ft. cube, deld. rly. depôt.
Bath ,,	1 7	,, ,,
Farleigh Down Bath	1 8	,, ,,
Beer in blocks	1 6½	,, ,,
Grinshill ,,	1 10	,, ,,
Brown Portland in blocks	2 2	,, ,,
Darley Dale in blocks	2 1½	,, ,,
Red Corsehill ,,	2 5	,, ,,
Red Mansfield ,,	2 4½	,, ,,
Hard York in blocks	2 10	,, ,,
Hard York 6 in. sawn both sides landings, to sizes (under 40 ft. sup.)	2 8	per ft. super. at rly. depôt
,, ,, 6 in. Rubbed Ditto	3 0	,, ,,
,, ,, 3 in. sawn both sides slabs (random sizes)	1 3	,, ,,
,, ,, 2 in. self-faced Ditto	0 9½	,, ,,
Hopton Wood (Hard Bed) in blocks	2	3 per ft. cube. deld. rly. depôt.
,, ,, ,, 6-in sawn both sides landings	2	7 per ft. super. deld. rly. depôt.
,, ,, ,, 3-in. do.	1 2½	,, ,,

SLATES.

in. in.	£ s. d.	
20×10 best blue Bangor	11 5 0	per 1000 of 1200 at ry. dep.
,, best seconds ,,	10 15 0	,, ,,
16× 8 best ,,	6 2 6	,, ,,
20×10 best blue Portmadoc	10 18 0	,, ,,
16× 8 best blue Portmadoc	6 0 0	,, ,,
20×10 best Eureka unfading green	11 2 6	,, ,,
16× 8 ,, ,,	6 15 0	,, ,,
20×10 Permanent green	10 0 0	,, ,,
15× 8 ,, ,,	5 12 6	,, ,,

TILES.

	s. d.	
Best plain red roofing tiles	41 6	per 1,000 at rly. depôt.
Hip and valley tiles	3 7	per doz. ,, ,,
Best Broseley tiles	48 6	per 1,000 ,, ,,
Hip and valley tiles	4 0	per doz. ,, ,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57 6	per 1,000 ,, ,,
Do. ornamental Do.	60 0	,, ,, ,,
Hip tiles	4 0	per doz. ,, ,,
Valley tiles	3 9	,, ,, ,,
Best Red or Mottled Staffordshire Do. (Peakes)	50 9	per 1,000 ,, ,,
Hip tiles	4 1	per doz. ,, ,,
Valley tiles	3 8	,, ,, ,,

WOOD.

BUILDING WOOD.—YELLOW.

	At per standard. £ s. d.	£ s. d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	14 10 0	16 10 0
Deals: best 3 by 9	13 10 0	14 10 0
Battens: best 2½ in. by 7 in. and 8 in. and 3 in. by 7 in. and 8 in.	11 0 0	12 0 0
Battens: best 2½ by 6 and 3 by 6	0 10 0	less than 7 in. and 8 in.
Deals seconds	1 0 0	less than best
Battens: seconds	0 10 0	,, ,, ,,
2 in. by 4 in. and 2 in. by 6 in.	9 0 0	10 10 0
2 in. by 4½ in. and 2 in. by 5 in.	9 0 0	10 0 0
Foreign Sawn Boards—		
1 in. by 1¼ in. by 1½ in.	0 10 0	more than battens.
¾ in.	1 0 0	more than battens.
Fir timber: Best middling Danzig or Memel (average specification)	At per load of 50 ft. 4 10 0	5 0 0
Seconds	4 5 0	4 10 0
Small timber (8 in. to 10 in.)	3 12 6	3 15 0
Swedish balks	2 15 0	3 0 0
Pitch pine timber (35 ft. average)	3 0 0	3 10 0
JOINERS' WOOD.	At per standard.	
White Sea: First yellow deals, 3 in. by 11 in.	25 0 0	26 0 0
3 in. by 9 in.	22 0 0	23 0 0
Battens, 2½ in. and 3 in. by 7 in.	18 0 0	20 0 0
Second yellow deals, 3 in. by 11 in.	20 0 0	21 0 0
,, ,, 3 in. by 9 in.	18 0 0	19 0 0
Battens, 2½ in. and 3 in. by 7 in.	14 0 0	15 0 0
Third yellow deals, 3 in. by 11 in. and 9 in.	14 10 0	15 10 0
Battens, 2½ in. and 3 in. by 7 in.	12 0 0	12 10 0
Petersburg: first yellow deals, 3 in. by 11 in.	22 0 0	23 0 0
Do. 3 in. by 9 in.	19 0 0	20 0 0
Battens	14 0 0	15 0 0
Second yellow deals, 3 in. by 11 in.	15 10 0	16 10 0
Do. 3 in. by 9 in.	14 0 0	15 0 0
Battens	11 10 0	12 0 0
Third yellow deals, 3 in. by 11 in.	13 10 0	14 10 0
Do. 3 in. by 9 in.	13 0 0	13 10 0
Battens	10 10 0	11 10 0
White Sea and Petersburg:—		
First white deals, 3 in. by 11 in.	15 0 0	16 0 0
,, ,, 3 in. by 9 in.	14 0 0	15 0 0
Battens	12 0 0	13 0 0
Second white deals 3 in. by 11 in.	14 0 0	15 0 0
,, ,, ,, 3 in. by 9 in.	13 0 0	14 0 0
,, ,, battens	10 10 0	11 10 0
Pitch pine: deals	16 0 0	18 0 0
Under 2 in. thick extra	0 10 0	1 0 0
Yellow Pine—		
First, regular sizes	30 0 0	33 0 0
Broads (12 in. and up)	2 0 0	more.
Oddments	22 0 0	24 0 0
Seconds, regular sizes	24 10 0	26 10 0
Yellow Pine Oddments	20 0 0	22 0 0
Kauri Pine—		
Planks, per ft. cube	0 3 6	0 4 6
Danzig and Stettin Oak Logs—		
Large, per ft. cube	0 2 6	0 3 0
Small ,, ,,	0 2 3	0 2 6
Wainscot Oak Logs, per ft. cube	0 5 0	0 5 6
Dry Wainscot Oak, per ft. sup. as inch	0 0 8	0 0 7
in. do. do.	0 0 7	- - -

PRICES CURRENT (*Continued*).

WOOD.

	At per standard. £ s. d.	£ s. d.
Dry Mahogany—		
Honduras, Tabasco, per ft. sup. as inch	0 0 9	0 0 11
Selected, Figury, per ft. sup. as inch	0 1 6	0 2 0
Dry Walnut, American, per ft. sup. as inch	0 0 10	0 1 0
Teak, per load	16 0 0	20 0 0
American Whitewood Planks—		
Per ft. cube	0 3 0	0 3 6
Prepared Flooring—	Per square	
1 in. by 6 in. and 7 in. yellow, planed and shot	0 13 0	0 16 6
1 in. by 6 in. and 7 in. yellow, planed and matched	0 13 6	0 17 6
1¼ in. by 6 in. and 7 in. yellow, planed and matched	0 16 0	1 1 0
1 in. by 6 in. and 7 in. white, planed and shot	0 11 0	0 13 0
1 in. by 6 in. and 7 in. white, planed and matched	0 11 6	0 13 6
1¼ in. by 6 in. and 7 in. white, planed and matched	0 14 0	0 16 6

JOISTS, GIRDERS, &c.

	In London, or delivered to Railway Vans, per ton. £ s. d.	£ s. d.
Rolled Steel Joists, ordinary sections	6 15 0	7 15 0
Compound Girders ,, ,,	8 15 0	10 0 0
Angles, Tees and Channels, ordinary sections	8 12 6	10 12 6
Flitch Plates	8 15 0	9 10 0
Cast Iron Columns and Stanchions, including ordinary patterns	7 5 0	9 0 0

METALS.

	Per ton, in London. £ s. d.	£ s. d.
IRON.—		
Common Bars	8 0 0	8 10 0
Staffordshire Crown Bars, good merchant quality	8 10 0	9 0 0
Staffordshire "Marked Bars"	10 10 0	- - -
Mild Steel Bars	9 0 0	9 10 0
Hoop Iron, basis price	9 5 0	9 15 0
,, ,, galvanised	16 0 0	- - -
(* And upwards, according to size and gauge.)		
Sheet Iron, Black.—		
Ordinary sizes to 20 g.	10 0 0	- - -
,, ,, to 24 g.	11 0 0	- - -
,, ,, to 26 g.	12 10 0	- - -
Sheet Iron, Galvanised, flat, ordinary quality.—		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	12 10 0	- - -
,, ,, 22 g. and 24 g.	13 0 0	- - -
,, ,, 26 g.	14 0 0	- - -
Sheet Iron, galvanised, flat, best quality.—		
Ordinary sizes to 20 g.	16 10 0	- - -
,, ,, 22 g. and 24 g.	17 0 0	- - -
,, ,, 26 g.	18 10 0	- - -
Galvanised Corrugated Sheets.—		
Ordinary sizes, 6 ft. to 8 ft. 20 g.	12 10 0	- - -
,, ,, 22 g. and 24 g.	13 0 0	- - -
,, ,, 26 g.	14 0 0	- - -
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12 5 0	- - -
,, ,, 22 g. and 24 g.	13 5 0	- - -
,, ,, 26 g.	14 5 0	- - -
Cut nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	9 10 0	10 0 0

LEAD, &c.

	Per ton, in London. £ s. d.	£ s. d.
LEAD—Sheet, English, 3 lbs. & up.	14 17 6	- - -
Pipe in coils	15 7 6	- - -
Soil Pipe	17 17 6	- - -
ZINC—Sheet—		
Vieille Montagne ton	24 10 0	- - -
Silesian	24 0 0	- - -
COPPER—		
Strong Sheet per lb.	0 1 0½	- - -
Thin ,,	0 1 2	- - -
Copper nails ,,	0 1 2	- - -
BRASS—		
Strong Sheet ,,	0 0 11	- - -
Thin ,,	0 1 1	- - -
TIN—English Ingots ,,	0 1 4½	- - -
SOLDER—Plumbers' ,,	0 0 7	- - -
Tinmen's ,,	0 0 8	- - -
Blowpipe ,,	0 0 9	- - -

PLASTER, &c.

	s. d.	
Coarse Plaster	30 0	per ton delivered.
Fine ,,	38 0	,, ,,
Coarse Keenes and Parian cement	51 6	,, ,,
Fine do. do.	59 6	,, ,,
Robinson's Fireproof Cement	51 6	,, ,,
Do. Finishing ,,	56 6	,, ,,
(Exclusive of the ordinary charge for sacks.		
Whiting	30 0	,, ,,

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	3d.	per ft. delivered.
,, ,, fourths	2¾d.	,, ,,
21 oz. thirds	3¾d.	,, ,,
,, ,, fourths	3½d.	,, ,,
26 oz. thirds	5d.	,, ,,
,, ,, fourths	4½d.	,, ,,
32 oz. thirds	6d.	,, ,,
,, ,, fourths	5½d.	,, ,,
Fluted sheet, 15 oz.	3½d.	,, ,,
,, ,, 21 ,,	4½d.	,, ,,
¼ Hartley's Rolled Plate	3d.	,, ,,
⅜ ,, ,, ,,	3½d.	,, ,,
½ ,, ,, ,,	4d.	,, ,,

PRICES CURRENT (*Continued*).

OILS, &c.

	£ s. d.	
Raw Linseed Oil in pipes	per gallon 0 2 10	
,, ,, ,, in barrels	,, 0 2 11	
,, ,, ,, in drums	,, 0 3 1	
Boiled ,, ,, in pipes	,, 0 3 0	
,, ,, ,, in barrels	,, 0 3 1	
,, ,, ,, in drums	,, 0 3 3	
Turpentine, in barrels	,, 0 2 3	
,, in drums	,, 0 2 5	
Genuine Ground English White Lead	per ton 22 0 0	
Red Lead, Dry	,, 22 10 0	
Best Linseed Oil Putty	per cwt. 0 9 0	
Stockholm Tar	per barrel 1 10 0	

VARNISHES, &c.

	per gallon £ s. d
Fine Elastic Copal Varnish for outside work	0 16 6
Best Elastic Copal Varnish for outside work	1 0 0
Best Elastic Carriage Varnish for outside work	0 16 6
Best Hard Oak Varnish for inside work	0 10 6
Best Extra Hard Church Oak Varnish for inside work	0 10 6
Fine Hard Copal Varnish for inside work	0 16 0
Best Hard Copal Varnish for inside work	1 0 0
Best Hard Carriage Varnish for inside work	0 16 0
Extra Pale Paper Varnish	0 18 0
Best Japan Gold Size	0 10 0
Best Black Japan	0 16 0
Oak and Mahogany Stain	0 9 0
Brunswick Black	0 9 0
Berlin Black	0 15 0
Knotting	0 10 0
Best French and Brush Polish	0 10 0

TO CORRESPONDENTS.

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* Denotes *accepted.* † Denotes *provisionally accepted.*

BARROW-ON-SOAR.—For the execution of sewerage works, &c., Newtown Linford, for the Rural District Council. Mr. F. Griffith, C.E., Bowling Green-street, Leicester. Quantities by engineer:—

Contract No. 1.—Sewerage Works.

Johnson & Son	£3,045 0 0	Riddett & Son	£2,381 14 6
C. Chamberlain	2,904 1 9	Mason & Co.	2,370 19 0
H. H. Barry	2,500 0 0	John Holme, Leicester*	2,146 18 3
T. Philbrick	2,418 14 6		

Contract No. 2.—Sewage Disposal Works.

Johnson & Son	£3,303 0 0	Mason & Co.	2,666 13 0
C. Chamberlain	2,986 0 0	Riddett & Son, Leicester*	£2,614 15 4
T. Philbrick	2,939 5 7		
John Holme	2,843 15 7		

CORK.—For alterations and additions to the Eccles Hotel, Glengariff, co. Cork:—

Sam. Hill	£5,641 0 0	W. H. Jones*	£5,092 9 2
Wm. O'Connell	5,580 0 0		

DEVONPORT.—For rebuilding No. 68, Fore-street, for Mr. Gamlen. Mr. H. G. Luff, architect, Devonport:—

Wakeham Bros.	£2,167 0	Smith & Son, Devonport*	£2,039 15
T. May	2,125 0	Jenkin & Son	2,035 0
Pearn Bros.	2,119 0		
Littleton & Son	2,107 0		

HADLEIGH (Suffolk).—For additions to police-station, for the West Suffolk Standing Joint Committee. Mr. A. Ainsworth-Hunt, County Surveyor, Sudbury. Quantities by the County Surveyor:—

Grimwood	£669 0	Castle	£510 0
Downs & Stephenson	590 0	Wheeler, East Bergholt*	498 0
Death	541 14		

HALIFAX.—For the erection of a house, Ellistones, Greetland, near Halifax, for Mr. George Wood. Messrs. J. F. Walsh & G. Nicholas, architects, L. and Y. Bank Chambers, Halifax:—

Masonry.—E. Naylor & Son, Halifax ....
Joinery.—W. Calverley, Greetland.....
Slating and Plastering.—J. Firth, West Parade, Halifax .....
Plumbing.—J. Riley, West Vale, near Halifax .....
} Accepted on a Schedule.

[See also next page.

LEEDS.—For executing excavation works for police-station, reel-house, &c., Dewsbury-road, for the Corporation. Messrs. Bedford & Kitson, architects, Greek-street Chambers, Leeds. Quantities by the architects :—

Masonry and Bricklaying.

James H. Wood*	£4,900	0	0

Carpentry and Joinery.

Benjamin Wood*	1,891	18	6

Plumbing.

J. E. Bedford*	1,143	17	6

Plastering.

W. Elsworth*	562	8	10

Slating.

W. Atkinson*	169	18	0

Painting.

Roylance & Horsman*	77	8	4
	£8,745	11	2

LONDON.—For erecting parochial buildings at St. Saviour's, Shepherd's Bush. Mr. J. S. Alder, architect, 1, Arundel-street, Strand, W.C. :—

F. T. Chinchen £2,180

LONDON.—For making-up, &c., Margaret-street, Stamford Hill, for the Hackney Borough Council. Mr. Norman Scorgie, C.E., Town Hall, Hackney, N.E. :—

Griffiths & Co.	£708	16	0
Thos. Adams	704	3	0
Grounds & Newton	681	7	5
G. Porter	£675	15	7
A. T. Catley, Lloyd-sq., W.C.*	646	4	6

LONDON.—For the erection of artisans' dwellings, Southwark, for the Trustees of Hayles Estate. Messrs. Waring & Nicholson, architects, 38, Parliament-street, Westminster :—

W. Wallis	£10,650	Chessum & Sons	£8,984
Bastow & Co., Ltd.	10,356	Smith & Sons, Ltd.	8,937
Wilson Bros. & Lamplough	10,120	J. M. Patrick	8,900
Nicks & Co.	9,975	E. J. Saunders	8,895
Allen & Sons	9,565	J. E. Mitchell	8,824
Thomas & Edge	9,468	J. Marsland	8,707
W. J. Renshaw	9,390	J. Appleby	8,663
Wells & Co.	9,364	Sabey & Son	8,639
Todd & Newman	9,269	J. R. Ward	8,537
F. & H. F. Higgs	9,200	H. L. Holloway	8,500
Jerrard & Sons	9,189	Smith & Son*	8,395
Burman & Sons	9,179	J. Parsons (withdrawn)	7,777
B. E. Nightingale	9,125		
Battley, Sons, & Holness	8,997		

MERTHYR TYDFIL.—For the erection of about sixty-one houses, for the Clare-street No. 2 Club. Mr. Charles Morgan Davies, architect, High-street, Merthyr Tydfil :—

	Per house only.	Extra for bedroom over back kitchen.
Mathew Worlow	£180 0	.....
Jones Bros., Troedyrhiw*	182 10	£14 10
Jones Bros.	199 10	22 0
S. Hawkins	191 0	28 6
J. Lewis	210 10	18 0

NOTTINGHAM.—For additions, &c., to Albion Schools. Mr. Hy. Allcock, architect, Bentinck-buildings, Nottingham :—

F. Booth, Woolpack-lane, Nottingham £550

TUNBRIDGE WELLS.—For the erection of new Temperance Institute, Upper Grosvenor-road, Tunbridge Wells, for the Tunbridge Wells Coffee House Company, Limited. Mr. H. Elwig, hon. architect, Tunbridge Wells :—

T. Baker	£1,185	J. Marshall	£1,040
Lency & Son	1,139	Jno. Jarvis	1,010
J. Crates	1,100	Goodwin Bros.	973

[All of Tunbridge Wells.]

WEST BRIDGFORD.—For pair of houses, West Bridgford, Notts. Mr. William R. Gleave, architect, 18, Low Pavement. Quantities by architect :—

G. A. Pillatt, Nottingham (accepted subject to variations) £1,240

WEST HAM.—For the construction of an underground sanitary convenience, Broadway, Stratford, for the Town Council. Mr. J. G. Morley, Borough Engineer, Town Hall, West Ham :—

Gibb & Co.	£3,879	Gregar & Son	£3,189
Foster Bros.	3,496	C. North	3,167
G. Sharpe	3,487	Works Manager, Canning Town*	3,117
Doulton & Co.	3,450		
G. Jennings	3,245		

WOKING.—For the erection of a detached house, Albany-road, Horsell, Woking, for Mr. Stanley Tibbenham. Mr. William G. Jones, architect, Woking :—

Drowley & Co.	£1,281	G. Allard, Woking*	£1,150
Harris & Son	1,180	W. Roake	1,149

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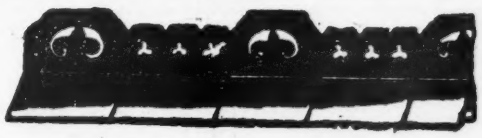

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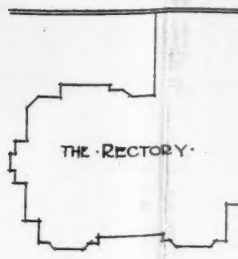

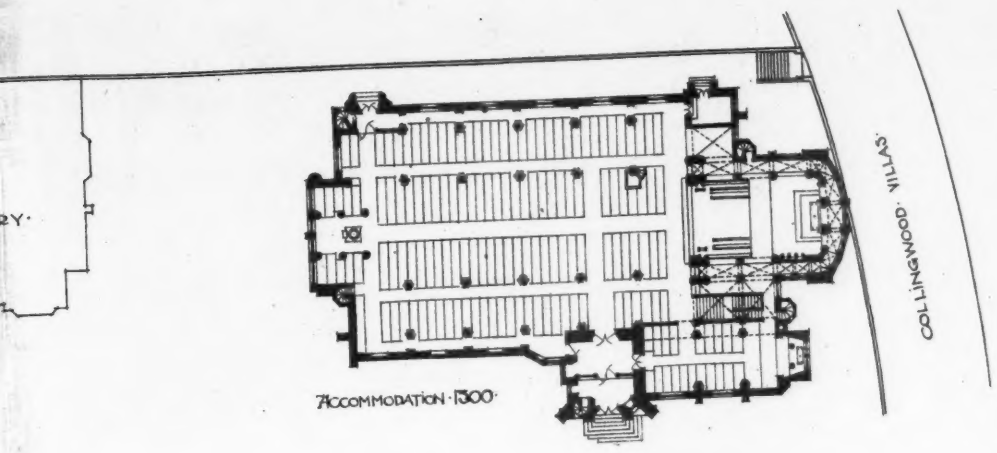
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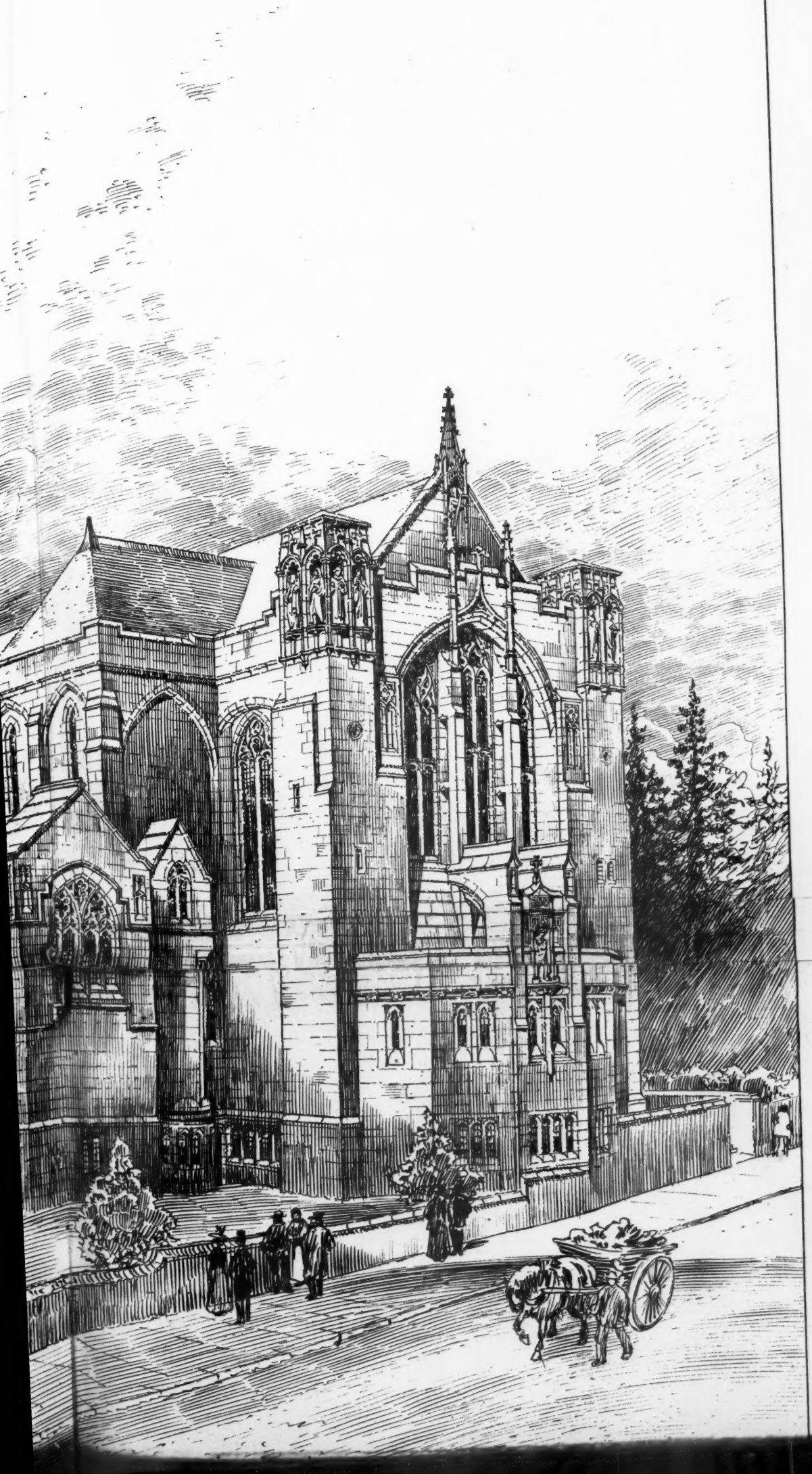

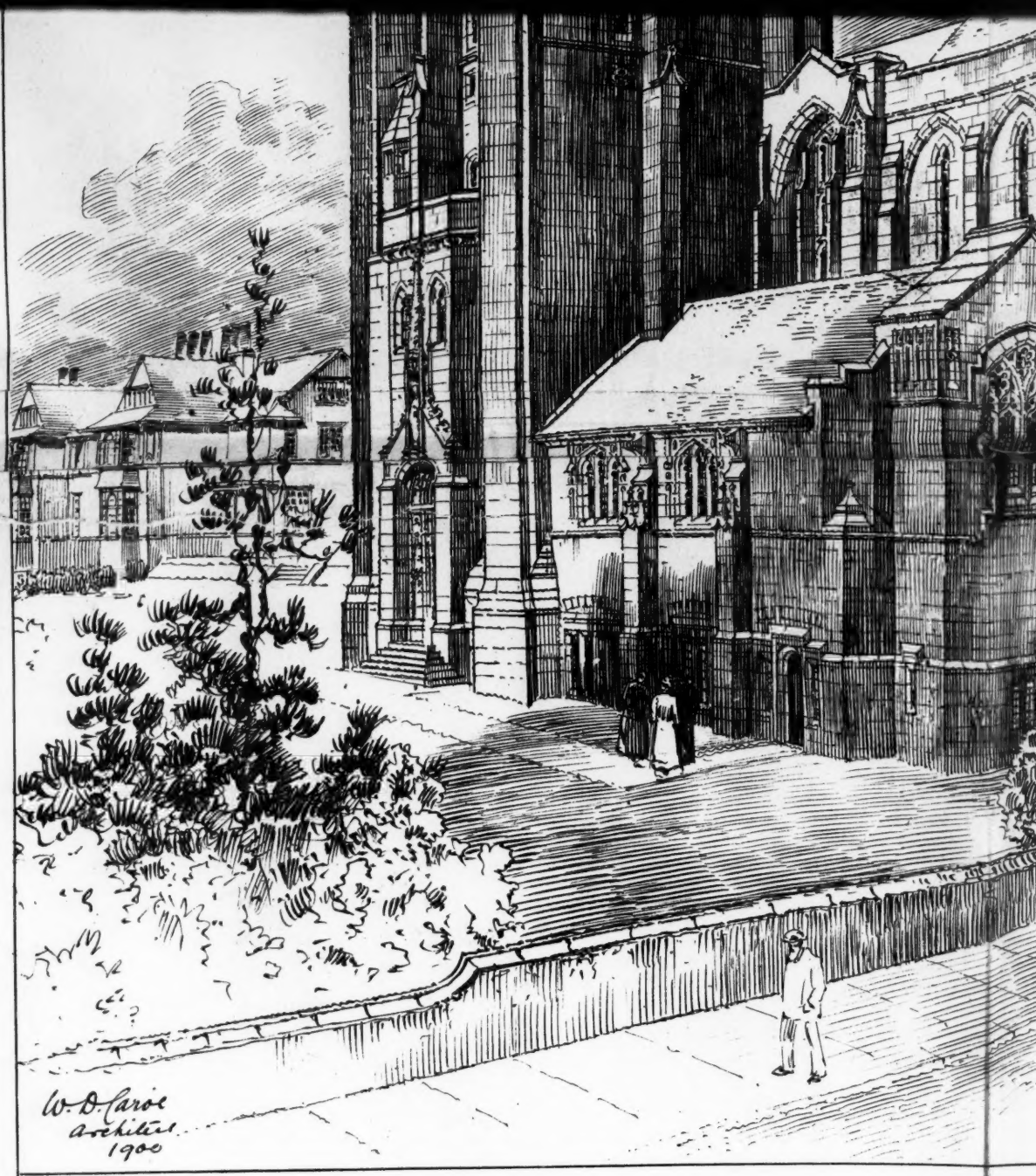

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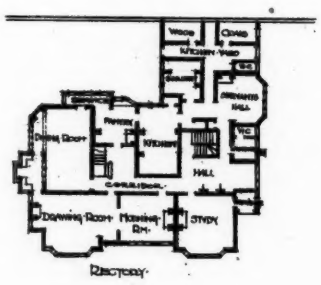

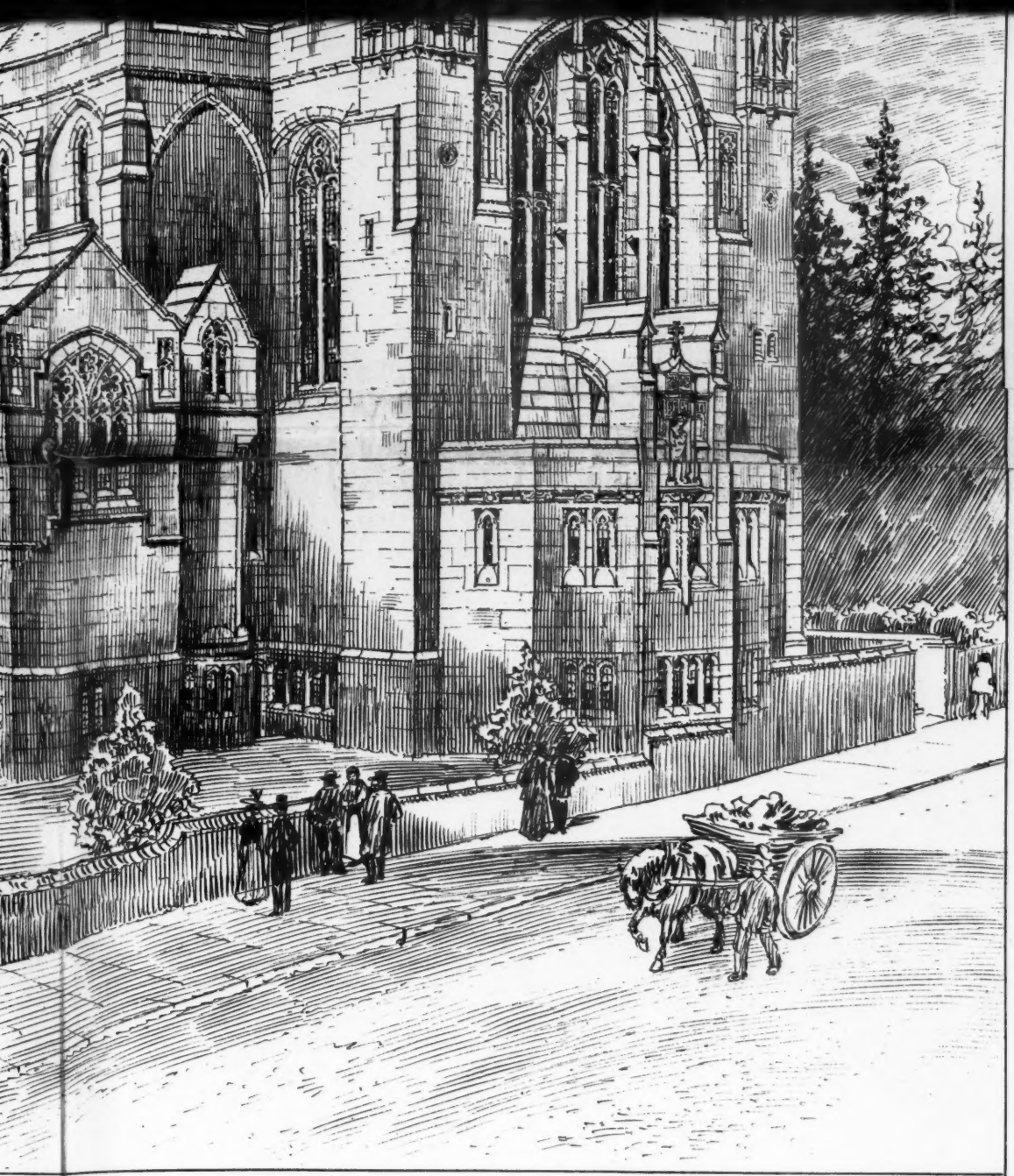

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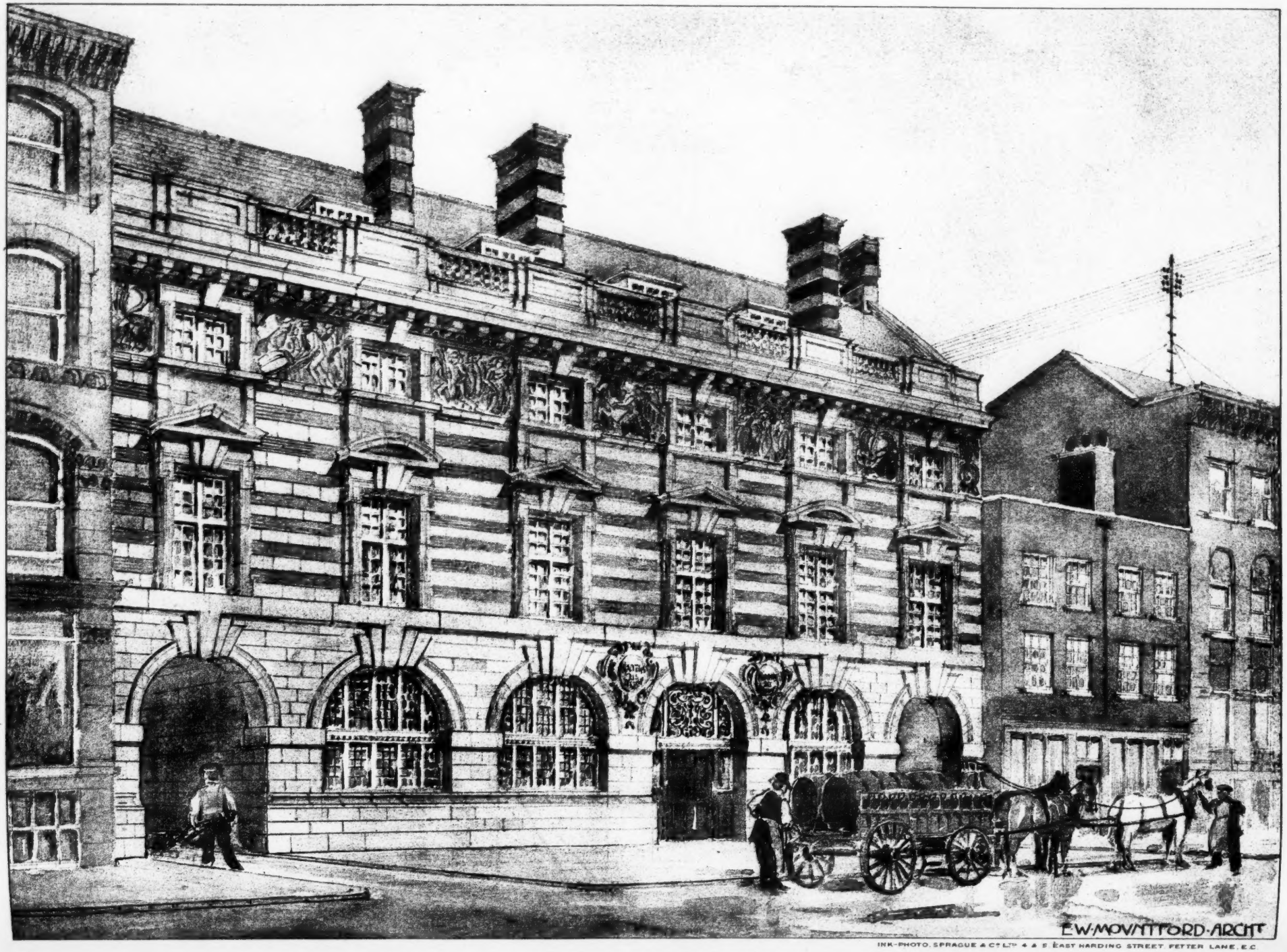

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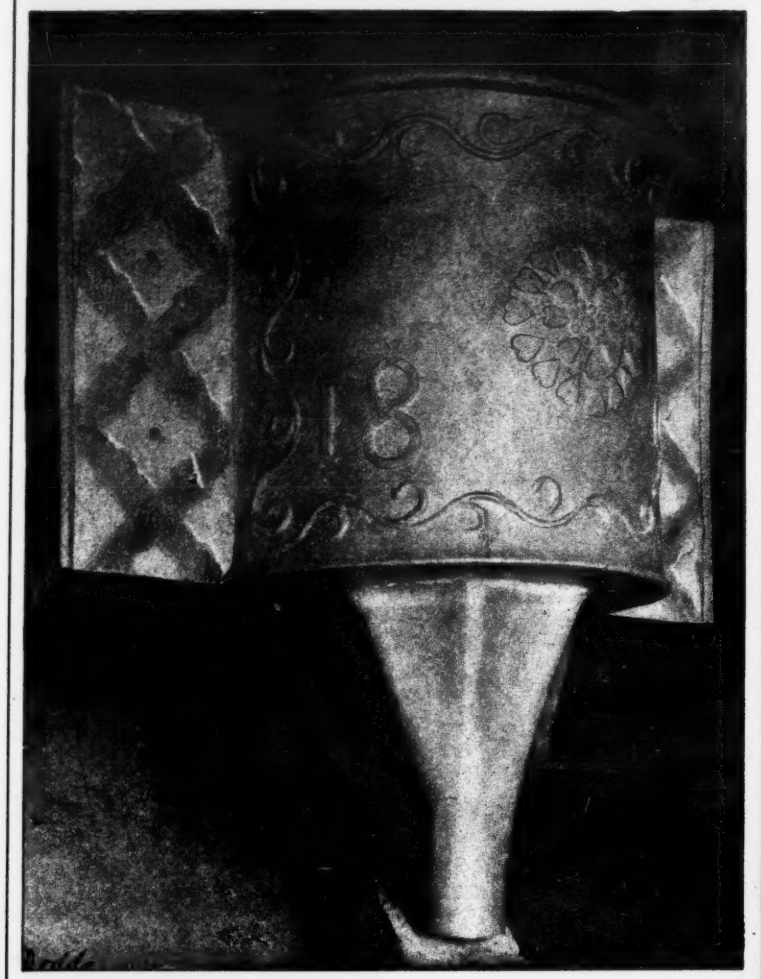

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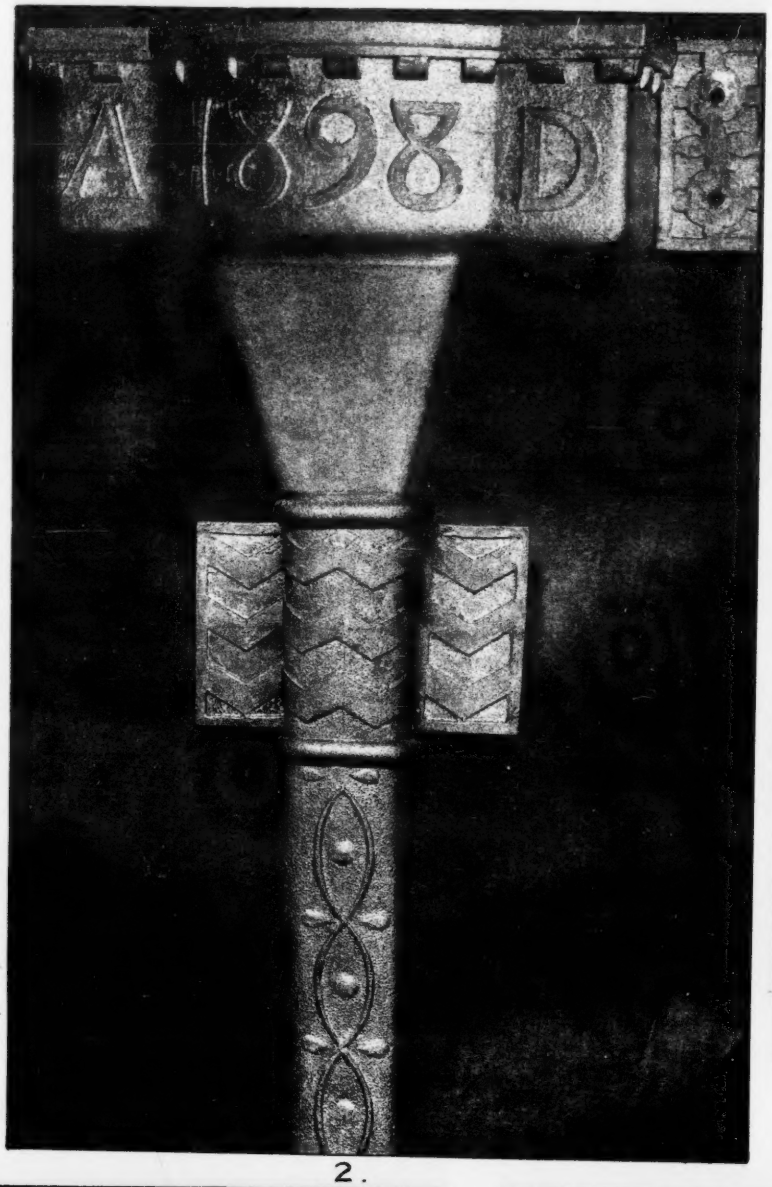

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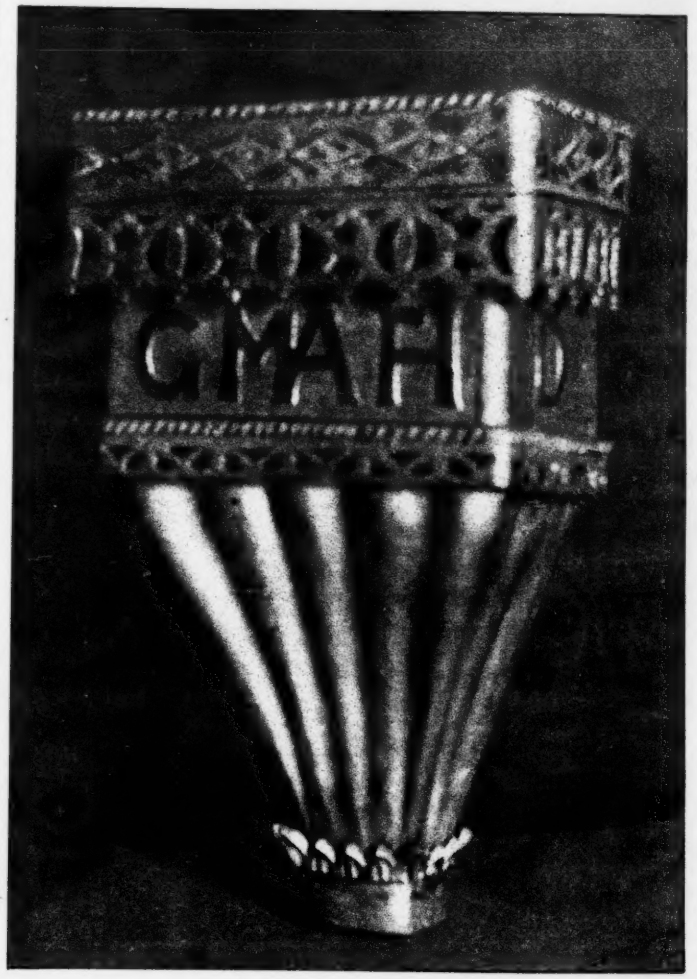

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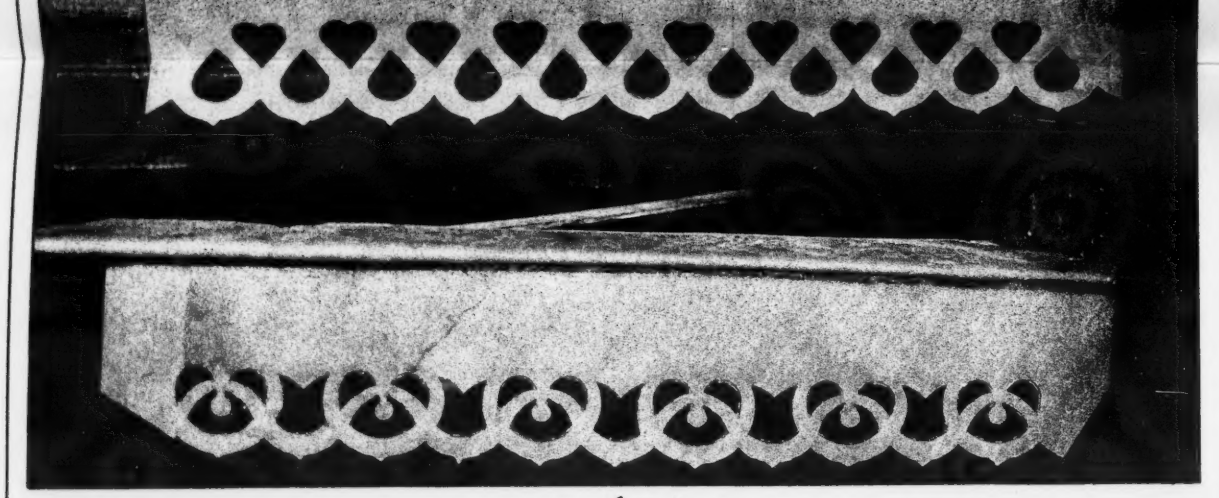

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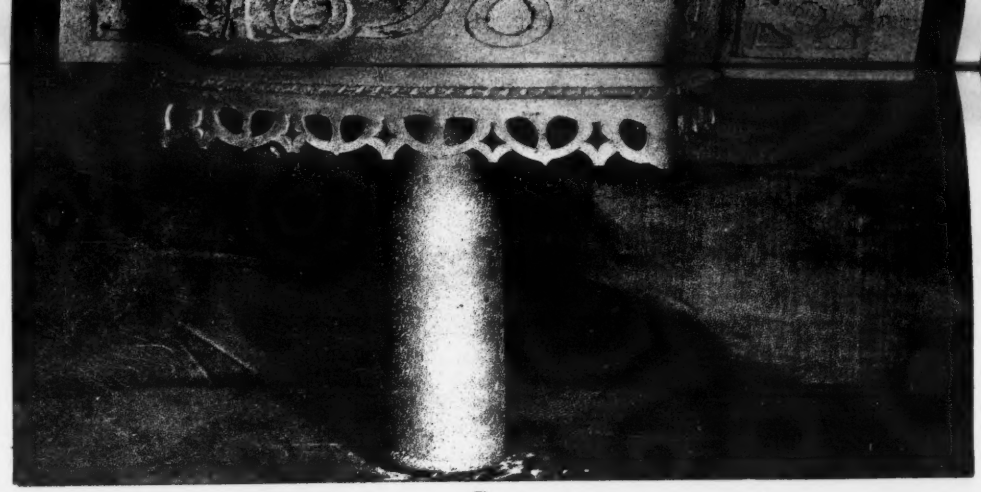

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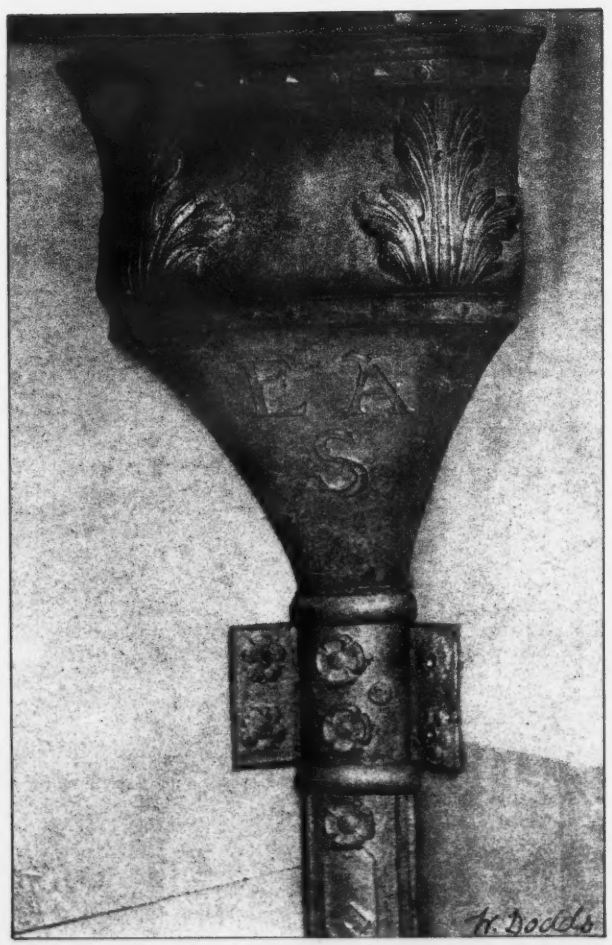

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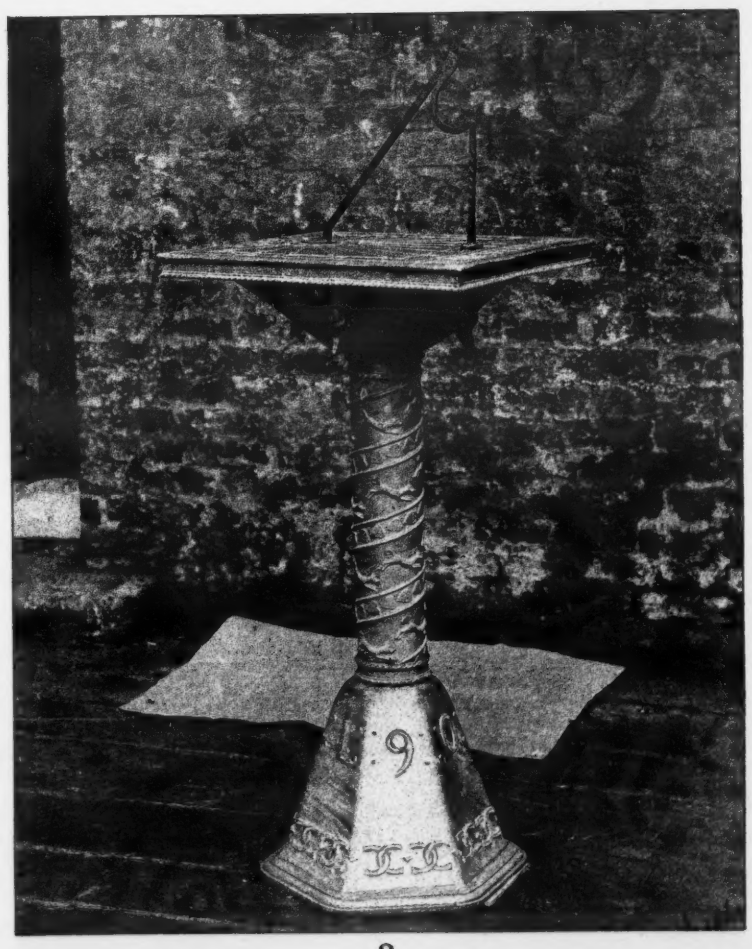

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